ALPINE

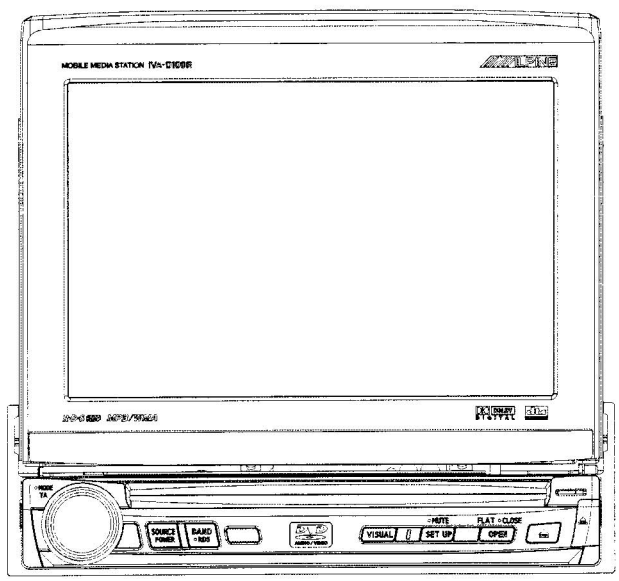
SERVICE MANUAL

Mobile Media Station

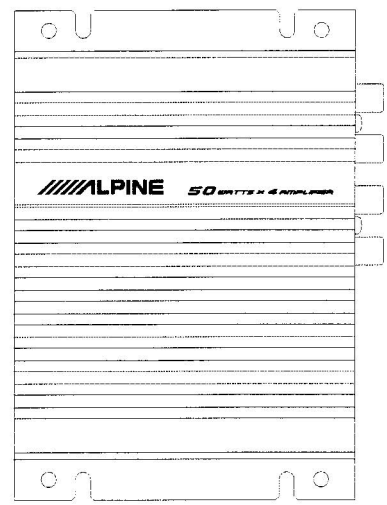
MP3 Plays Windows Media™ COMPACT disc DIGITAL AUDIO TEXT Made for iPod DVD AUDIO/VIDEO COMPACT disc DIGITAL VIDEO DOLBY DIGITAL dts 2.0+DIGITAL OUT™

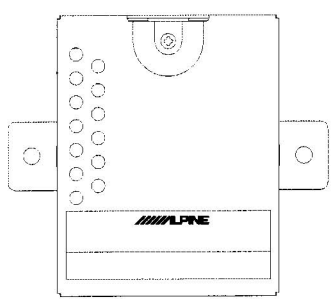
* The model is component system unit of Monitor Unit, Power Amplifier Unit and DC/DC Converter Unit.

Caution : The part marked with ⚠ is generating a high voltage, so care will be necessary when working.



(IVA-D100R)





TO ALPINE Home Page

5 / 06-A
A06016

IVA-D100R
IVA-D100RB

<Cautions for Safe Repair Work>

The following cautions will prevent accidents in the workplace and will ensure safe products.
*The symbols indicate caution is needed to prevent injuries and damage to property.
The symbols and their meanings follow.

⚠ **Warning**	If you ignore this symbol and handle the product incorrectly or unsafely, serious injury or death may result.
⚠ **Caution**	If you ignore this symbol and handle the product incorrectly or unsafely, injury or only material damage may result.

*The following symbols indicate two levels of cautions.

⚠	When you see this symbol, you have to be very careful.
❗	When you see this symbol, you have to follow the instructions there.

⚠ Warning

⚠ **Do not look squarely into the laser light coming from the pickup.** You may loose you sight.	❗ **Fuse Caution** Always use a designated fuse. Use of an incorrect fuse may result in a fire.

⚠ Caution

⚠ **Do not allow wiring to be caught in the screw/chassis.** If wiring is caught in the screw/chassis, it may cause a short circuit, resulting in a fire.	❗ **Battery Caution** Use the designated battery. Confirm the correct polarity and seat of the battery. An incorrect battery or an improperly connected or seated battery may result in a fire.
⚠ **High Temperature Caution** Touching the heat sink may cause severe burns.	❗ **Designated Parts Caution** Look up the part list and ensure that only designated parts are used to prevent problems or accidents.
⚠ **Reverse Power Supply Connections or Misconnections Caution** Reverse power supply connections or misconnections may cause ignition problems and smoke may result.	❗ **Wiring Caution** Ensure that the wiring is correct when rewiring to prevent problems with ignition/breakdown.
⚠ **Soldering Caution** Hot solder from solder splash may cause severe burns.	❗ **Wear Gloves** Wear gloves to prevent electrical shocks or injury from the end face of the metal.

⚠ **For the FDA laser standard, the following CAUTION label is stuck on each product.**
Please be careful for repair.

CAUTION-Laser radiation when open, DO NOT STARE INTO BEAM

Contents

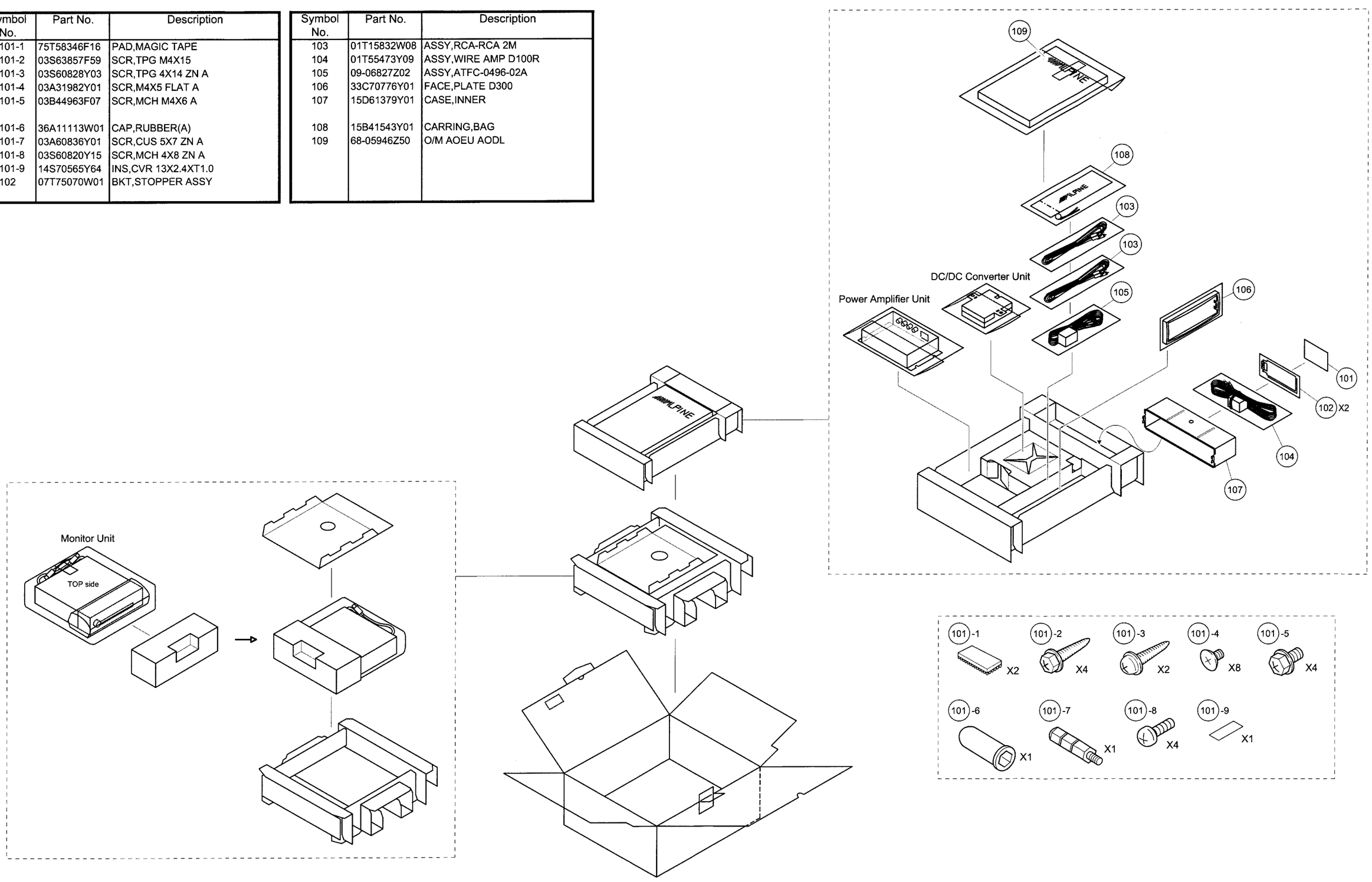
Packing Assembly Parts List	4
Packing Method View	4
System Connections	5 to 10
Extension Cable	11
Adjustment Procedures	12 to 15
Block Diagram	16 , 17
*** Monitor Unit Block**	18 to 102
*** Power Amplifier Unit Block**	103 to 108
*** DC/DC Converter Unit Block**	109 to 113

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

Packing Assembly Parts List

Symbol No.	Part No.	Description
101-1	75T58346F16	PAD,MAGIC TAPE
101-2	03S63857F59	SCR,TPG M4X15
101-3	03S60828Y03	SCR,TPG 4X14 ZN A
101-4	03A31982Y01	SCR,M4X5 FLAT A
101-5	03B44963F07	SCR,MCH M4X6 A
101-6	36A11113W01	CAP,RUBBER(A)
101-7	03A60836Y01	SCR,CUS 5X7 ZN A
101-8	03S60820Y15	SCR,MCH 4X8 ZN A
101-9	14S70565Y64	INS,CVR 13X2.4XT1.0
102	07T75070W01	BKT,STOPPER ASSY
103	01T15832W08	ASSY,RCA-RCA 2M
104	01T55473Y09	ASSY,WIRE AMP D100R
105	09-06827Z02	ASSY,ATFC-0496-02A
106	33C70776Y01	FACE,PLATE D300
107	15D61379Y01	CASE,INNER
108	15B41543Y01	CARRING,BAG
109	68-05946Z50	O/M AOEU AODL

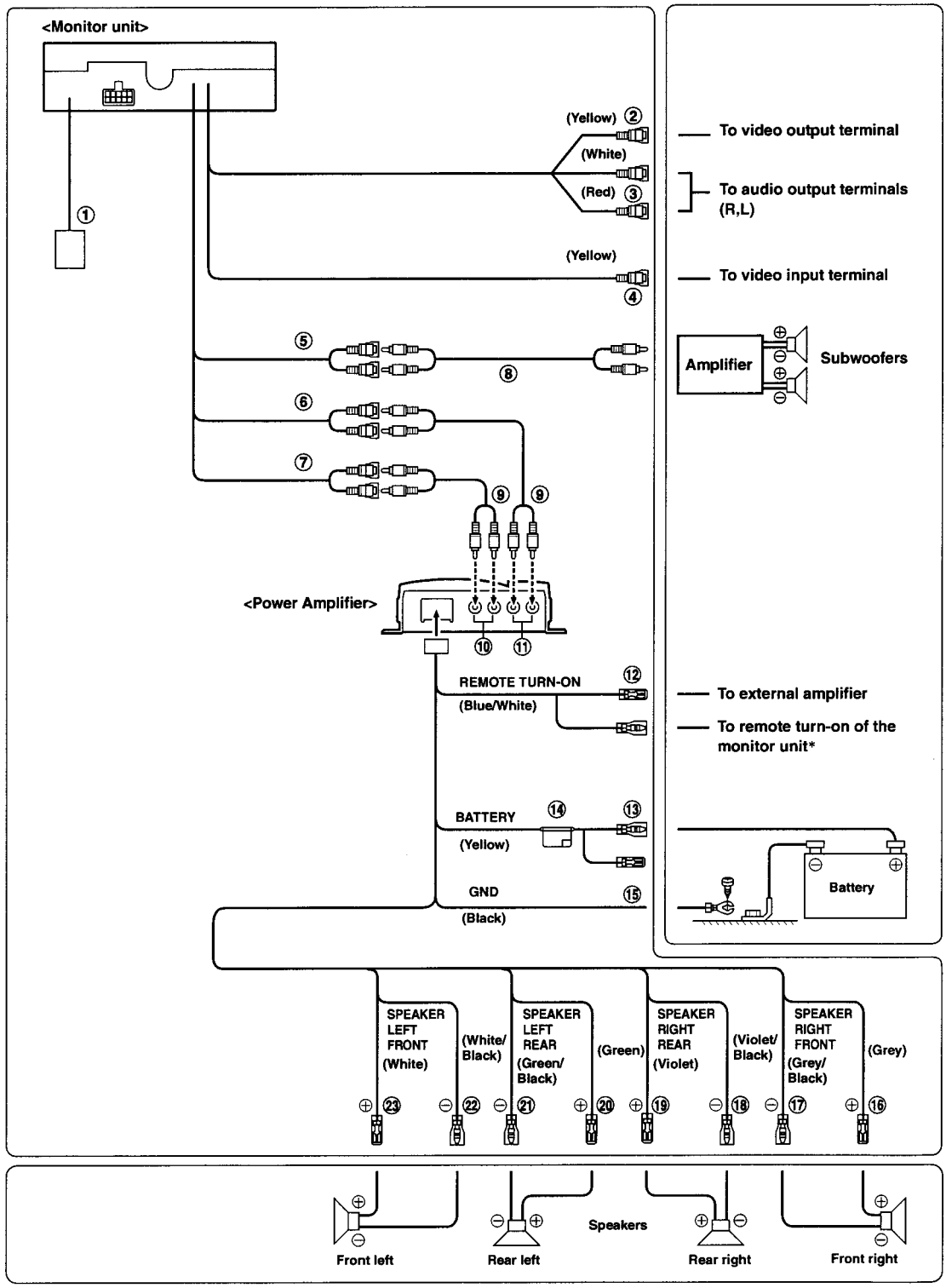
Packing Method View



TO CONTENTS

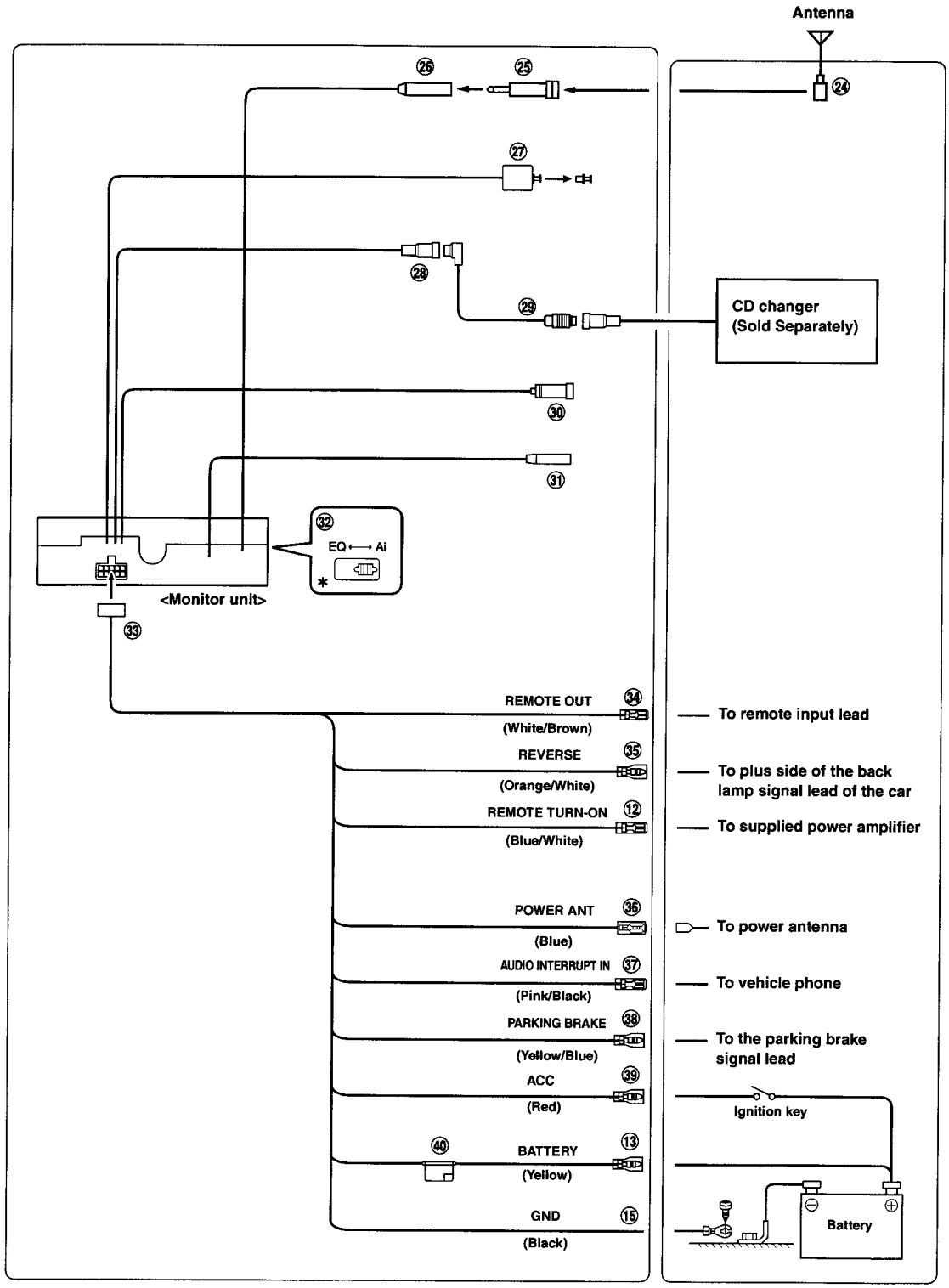
System Connections

Connections



* *Do not connect the power supply cable when the ignition is turned on or set to Accessory.*

TO CONTENTS



• *Set the system switch to "Ai" when only a changer is connected (when the Ai-NET compatible equalizer is not used).*

* *The label is attached on the bottom of the unit.*

TO CONTENTS

① **DC/DC Converter**
- *Do not install the converter at a location subjected to water such as under the floor mat or air conditioner. This may cause a malfunction.*
- *Do not bundle the DC/DC converter cable with other audio cables. Also, do not install the cables directly next to the unit. Doing so may induce noise into your system.*
- *Keep the DC/DC converter away from the Antenna cables and the rear side of the unit, otherwise noise may be generated when receiving radio broadcast.*

② **Video Input Connector (AUX INPUT) (Yellow)**
Input the video.

③ **Audio Input Connectors (AUX INPUT)**
RED is right and WHITE is left input the audio.

④ **Video Output Connector (Yellow)**
Output the video.

⑤ **Subwoofer RCA connectors**
Connect the input lead of an amplifier for the subwoofer to this terminal.

⑥ **Front Output RCA Connectors**
RED is right and WHITE is left.

⑦ **Rear Output RCA Connectors**
RED is right and WHITE is left.

⑧ **RCA Extension Cable (sold separately)**

⑨ **RCA Extension Cable (Included)**

⑩ **Rear Input Terminals**

⑪ **Front Input Terminals**

⑫ **Remote Turn-On Lead (Blue/White)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

⑬ **Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.

⑭ **Fuse Holder (15A)**

⑮ **Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

⑯ **Right Front (+) Speaker Output Lead (Grey)**

⑰ **Right Front (–) Speaker Output Lead (Grey/Black)**

⑱ **Right Rear (–) Speaker Output Lead (Violet/Black)**

⑲ **Right Rear (+) Speaker Output Lead (Violet)**

⑳ **Left Rear (+) Speaker Output Lead (Green)**

㉑ **Left Rear (–) Speaker Output Lead (Green/Black)**

㉒ **Left Front (–) Speaker Output Lead (White/Black)**

㉓ **Left Front (+) Speaker Output Lead (White)**

㉔ **ISO Antenna Plug**

㉕ **ISO Antenna Converter Plug (sold separately)**

㉖ **Antenna Receptacle**

㉗ **Digital Output Terminal (Optical)**
Use when combining fiber digital input compatible products.

㉘ **Ai-NET Connector**
Connect this to the output or input connector of other product (CD changer, Equalizer, iPod adapter*, etc.) equipped with Ai-NET.

* *If you connect to iPod, you need the optional adapter (KCA-420i). For details on connection, refer to the Owner's Manual of the KCA-420i.*

㉙ **Ai-NET Cable (Included with CD Changer)**

㉚ **RGB Input Terminal**
Connect this to the RGB output terminal of the Navigation System.

㉛ **Steering Remote Control Interface Connector**
To steering remote control interface box.
For details about connections, consult your nearest Alpine dealer.

㉜ **System Switch**
When connecting a processor or divider using Ai-NET, place this switch in the EQ position. When no device is connected, leave the switch in the Ai position.

- *Be sure to turn the power off to the unit before changing the switch position.*

㉝ **Power Supply Connector**

㉞ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

㉟ **Reverse Lead (Orange/White)**
Use only when a back-up camera is connected. Connect to the plus side of the car's reverse lamp that lights when the transmission is shifted into reverse (R).
Switches the video picture to the back-up camera. This is linked with putting the car into reverse (R).

㊱ **Power Antenna Lead (Blue)**
Connect this lead to the +B terminal of your power antenna, if applicable.

㊲ **Audio Interrupt In Lead (Pink/Black)**

㊳ **Parking Brake Lead (Yellow/Blue)**
Connect this lead to the power supply side of the parking brake switch to transmit the parking brake status signals to the IVA-D100R/IVA-D100RB.

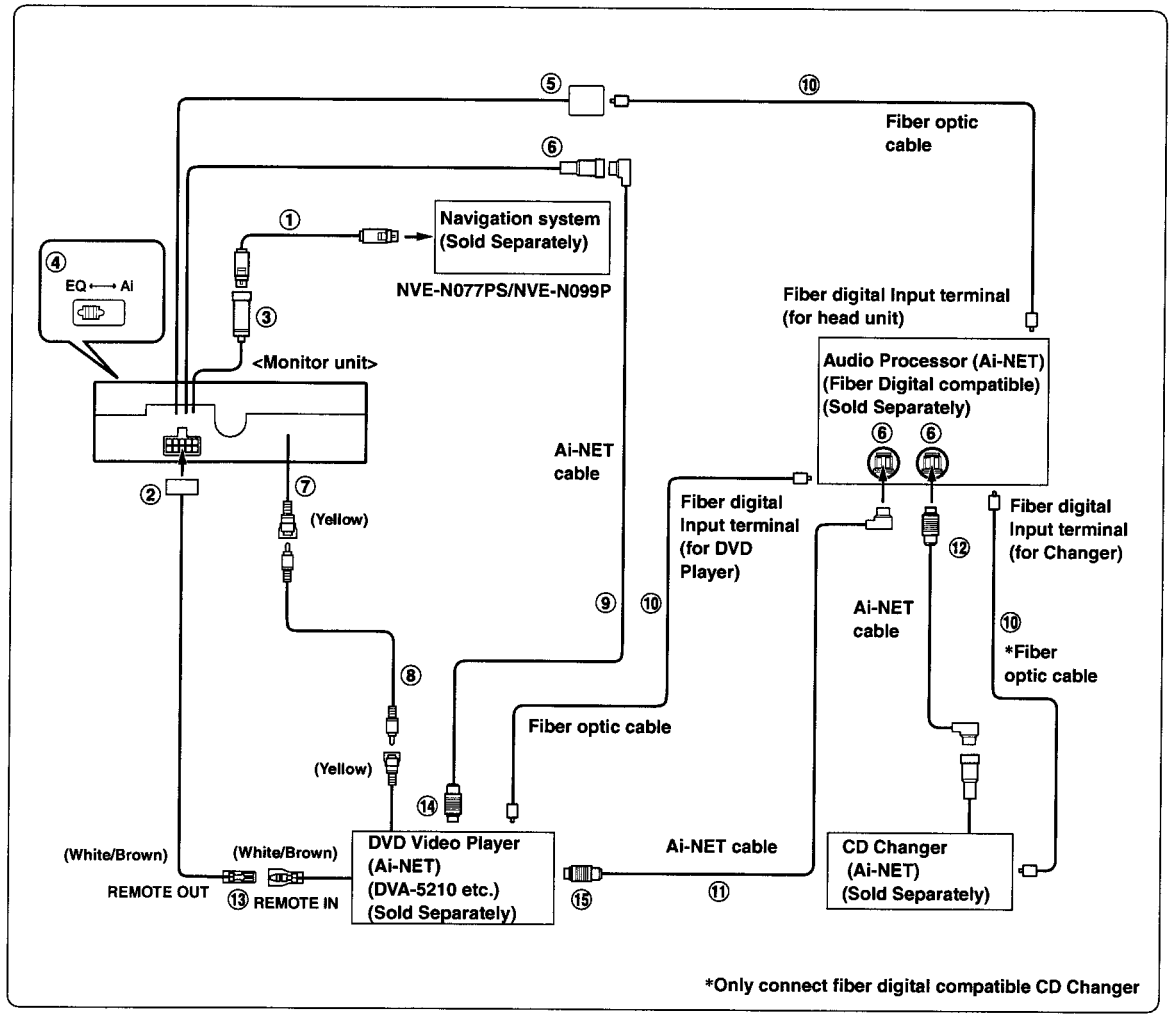
㊴ **Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+) 12V only when the ignition is turned on or in the accessory position.

㊵ **Fuse Holder (7.5A)**

TO CONTENTS

System Example

Connect the Ai-NET compatible audio processor (Fiber digital compatible), Navigation system, DVD player and changer.



- *When the fiber digital compatible product is connected, it is necessary to set the mode of this unit.*
- *When the NVE-N055PS is connected for the Navigation System, use the RGB conversion cable KCE-030N (Sold separately).*

Please observe the following when using Fiber Optic Cable.

- *Do not coil the Fiber Optic Cable smaller than a 30 mm radius.*
- *Do not place anything on top of the Fiber Optic Cable.*
- *Be careful not to bend the Fiber Optic Cable at a sharp angle.*

TO CONTENTS

① **RGB Cable (Included with Navigation)**

② **Power Supply Connector**

③ **RGB Input Terminal**
Connect this to the RGB output terminal of the Navigation System.

④ **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ position. When no device is connected, leave the switch in the Ai position.
- *Be sure to turn the power off to the unit before changing the switch position.*

⑤ **Digital Output Terminal**

⑥ **Ai-NET Connector**
Connect this to the output or input connector of other product equipped with Ai-NET.

⑦ **AUX Video Input Connector (AUX INPUT)**
Connect the video output lead of a DVD video player or DVD changer to this terminal.

⑧ **RCA Extension Cable (Included with DVD video player)**

⑨ **Ai-NET Cable (Included with DVD video player)**

⑩ **Fiber optic Cable (Sold Separately)**

⑪ **Ai-NET Cable (Included with Audio Processor)**

⑫ **Ai-NET Cable (Included with CD Changer)**

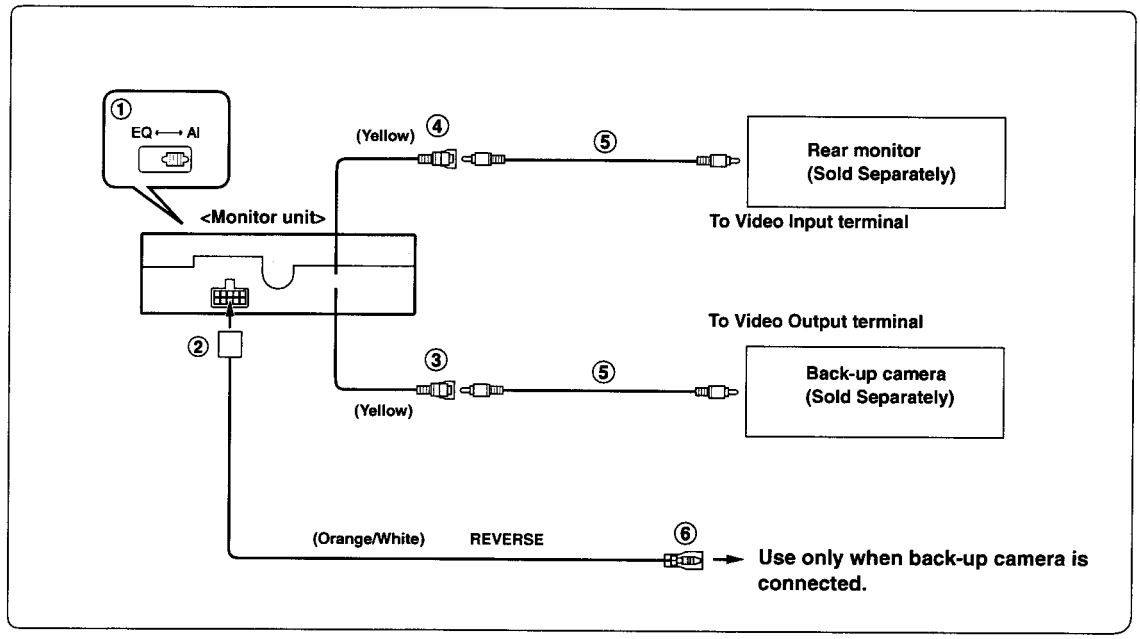
⑬ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑭ **To Ai-NET Connector (Grey)**

⑮ **To Ai-NET Connector (Black)**

TO CONTENTS

When Connecting External Equipment



① **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ position. When no device is connected, leave the switch in the Ai position.
- *Be sure to turn the power off to the unit before changing the switch position.*

② **Power Supply Connector**

③ **AUX Video Input Connector (AUX INPUT)**
Use when connecting a back-up camera.

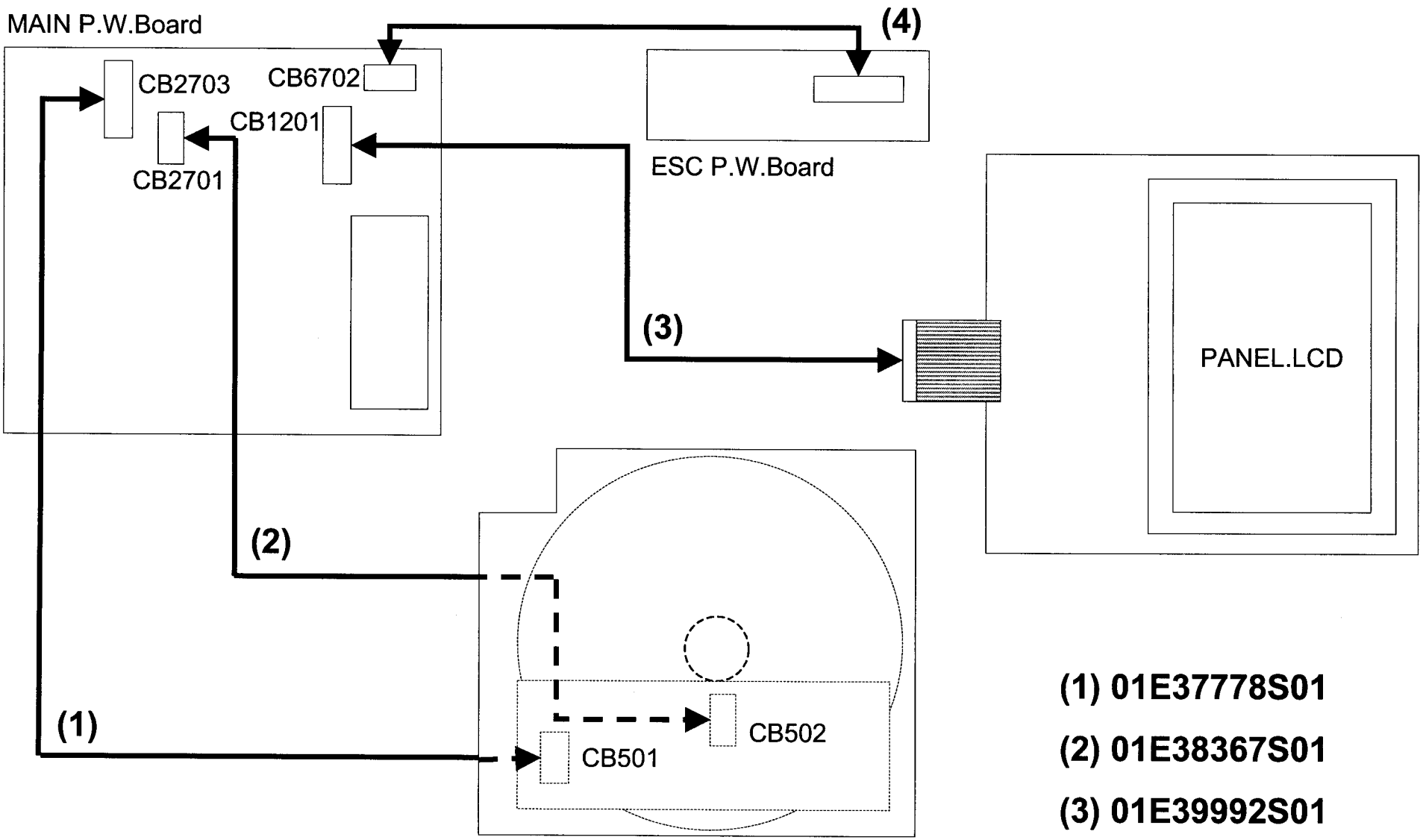
④ **AUX Video Output Connector**
Use when connecting an optional monitor etc.

⑤ **RCA Extension Cable (Sold separately)**

⑥ **Reverse Lead (Orange/White)**
Connect to the plus side of the car's reverse lamp which lights when the transmission is shifted into reverse (R). Switches the video picture to the back-up camera. This is linked to putting the car into reverse (R).

TO CONTENTS

Extension Cable



*Always connect the Extension Cable when making checks of voltage and repair.

DVD Deck Mechanism (DV37M15B)

(1) 01E37778S01

(2) 01E38367S01

(3) 01E39992S01

(4) 01E37788S01

TO CONTENTS

Adjustment Procedures

1. LCD Adjustment

(1) PARKING Deregulation Method

Connect PARKING BRAKE to Lo (GND).

(2) Connection

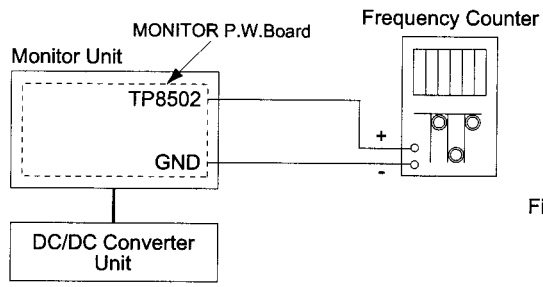


Figure 1

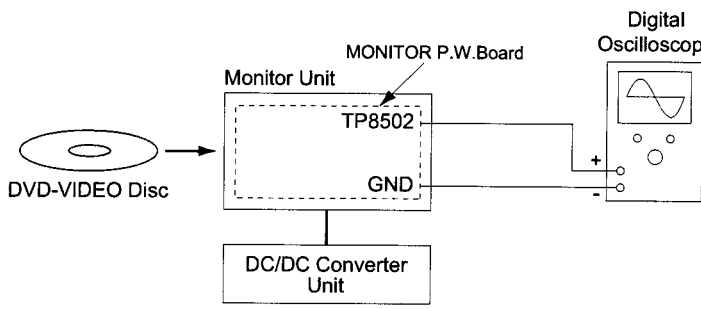


Figure 2

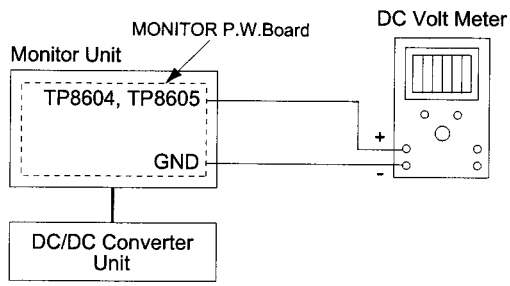


Figure 3

TO CONTENTS

(3) Adjustment Procedures

Step	Adjustment Item	Connection	Test Point / P.W.Board Coordinates	Adjustment Procedures
1	FreeRun Adjustment	Figure 1	TP8502 (3-B)	(1) Set AUX IN to "ON" . [SET UP] push -> [OTHER SETUP] touch -> [SYSTEM SETUP] touch -> AUX IN [ON] touch (2) Set the source to AUX. [SOURCE] push -> [AUX] touch * Don't input any AUX IN signal. (3) Adjust by VR8502 so that it may be set to 15.73kHz±0.1kHz.
2	Blanking width Adjustment of horizontal synchronizing signal	Figure 2	TP8502 (3-B)	(1) Set the source to DVD. [SOURCE] push -> [DVD PLAYER] touch (2) Adjust by VR8501 so that it may be set to 4.70±0.05µs. (Refer to Figure 4)
3	OSD Dot Clock Adjustment			(1) Set REAR SELECT to "OFF". [SET UP] push -> [REAR SELECT] touch -> [OFF] touch (2) Set the source to TUNER. [SOURCE] push -> [RADIO] touch (3) Adjust looking at the screen where OSD is displayed. (4) Adjust by VT8401 so that the right side of OSD display and the right side of screen are located in a line. (Refer to Figure 5)
4	DC/DC output voltage (+13V) Adjustment	Figure 3	TP8604 (4-C)	Adjust by VR3850 so that it may be set to +13.00±0.30V.
5	DC/DC output voltage (-16V) Adjustment	Figure 3	TP8605 (4-C)	Adjust by VR3851 so that it may be set to -16.00±0.30V.

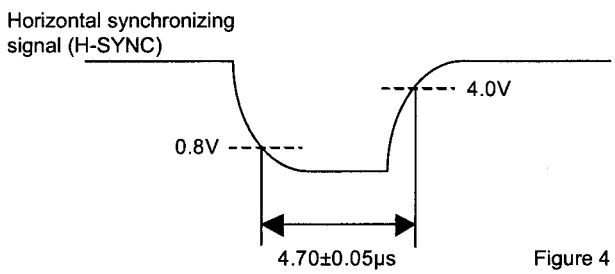
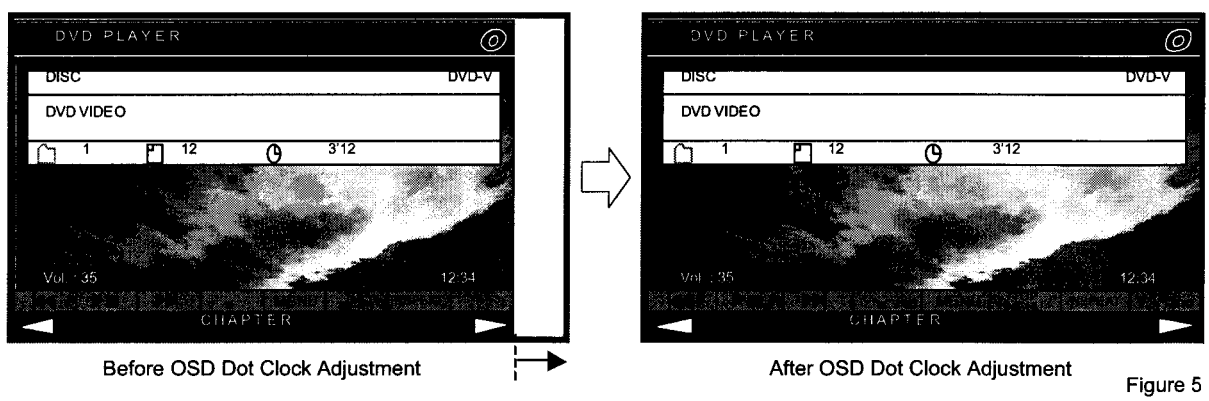


Figure 4



Before OSD Dot Clock Adjustment

After OSD Dot Clock Adjustment

Figure 5

TO CONTENTS

2. RGB Adjustment

(1) PARKING Deregulation Method

Connect PARKING BRAKE to Lo (GND).

(2) Connection

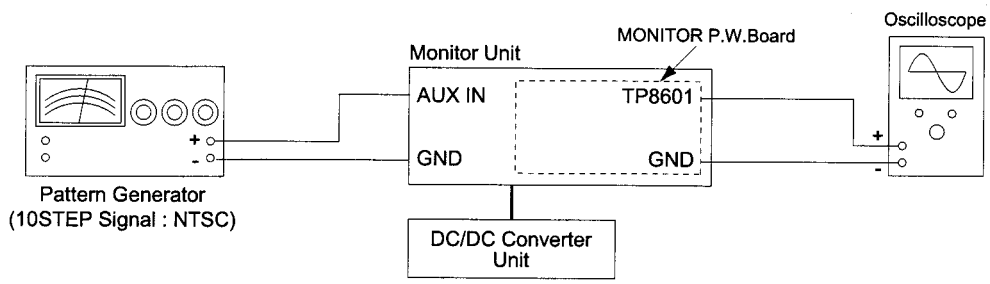


Figure 1

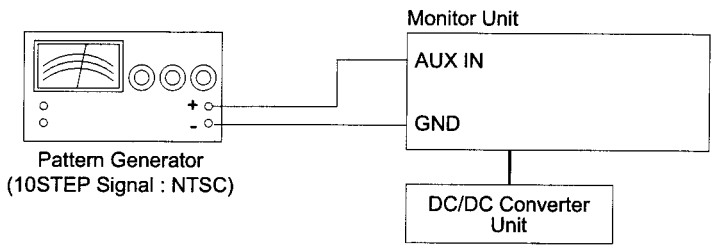


Figure 2

(3) Adjustment Procedures

Step	Adjustment Item	Connection	Test Point / P.W.Board Coordinates	Adjustment Procedures
1				Input NTSC 10STEP signal from AUX.
2				Enter the DIAG mode. TUNER mode ([SOURCE] push -> [RADIO] touch) -> [PAGE 1/2] or [PAGE 2/2] long touch -> [SET UP] push -> [VISUAL] push -> [SOURCE] push
3				[P-3] (3 VIDEO CHK) touch -> [P-4] (4 RGB ADJ) touch
4	COM AMP Adjustment	Figure 1	TP8601 (4-C)	Adjust by [P-1],[P-2] touch so that it may be set to 6.5Vp-p. (Refer to Figure 3)
5				[P-3] touch -> COM DC mode.
6	COM DC Adjustment	Figure 2		Adjust by [P-1],[P-2] touch so that the flicker of screen may disappear.
7				[PAGE 2/2] touch 3 times -> End the DIAG mode.

TO CONTENTS

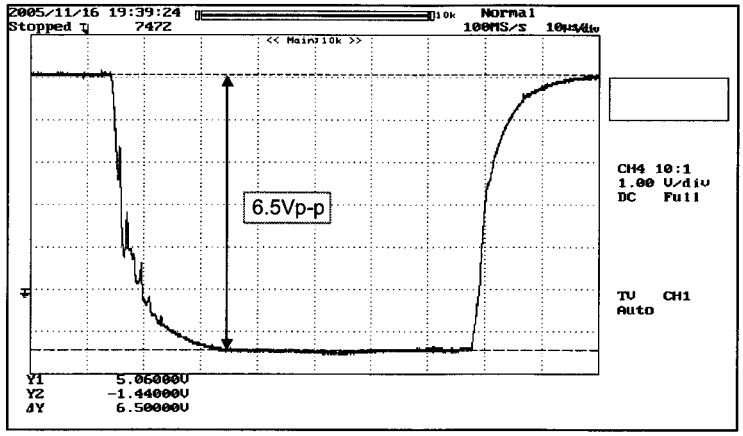


Figure 3

3. CALIBRATION Adjustment

(1) Adjustment Procedures

Step	Adjustment Item	Adjustment Procedures
1		Enter the DIAG mode. TUNER mode ([SOURCE] push -> [RADIO] touch) ->[PAGE 1/2] or [PAGE 2/2] long touch ->[SET UP] push -> [VISUAL] push -> [SOURCE] push
2		[MEMORY] (7 TOUCH&OSD) touch -> [P-4] (4 CALIBRATION) touch
3	Calibration Adjustment	(1) Push correctly the center of Calibration Touch Key displayed on the screen lower left. (Refer to Figure 1) (2) Push correctly the center of Calibration Touch Key displayed on the screen upper right. (Refer to Figure 2)
4		[PAGE 2/2] touch 3 times -> End the DIAG mode.

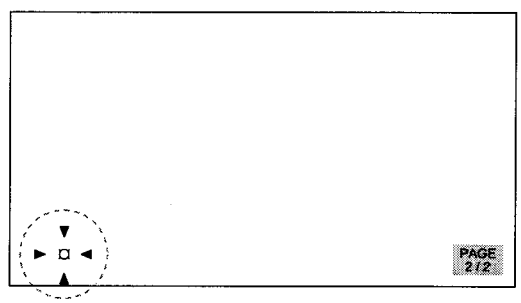


Figure 1

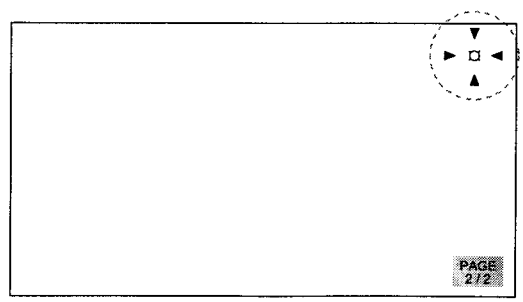
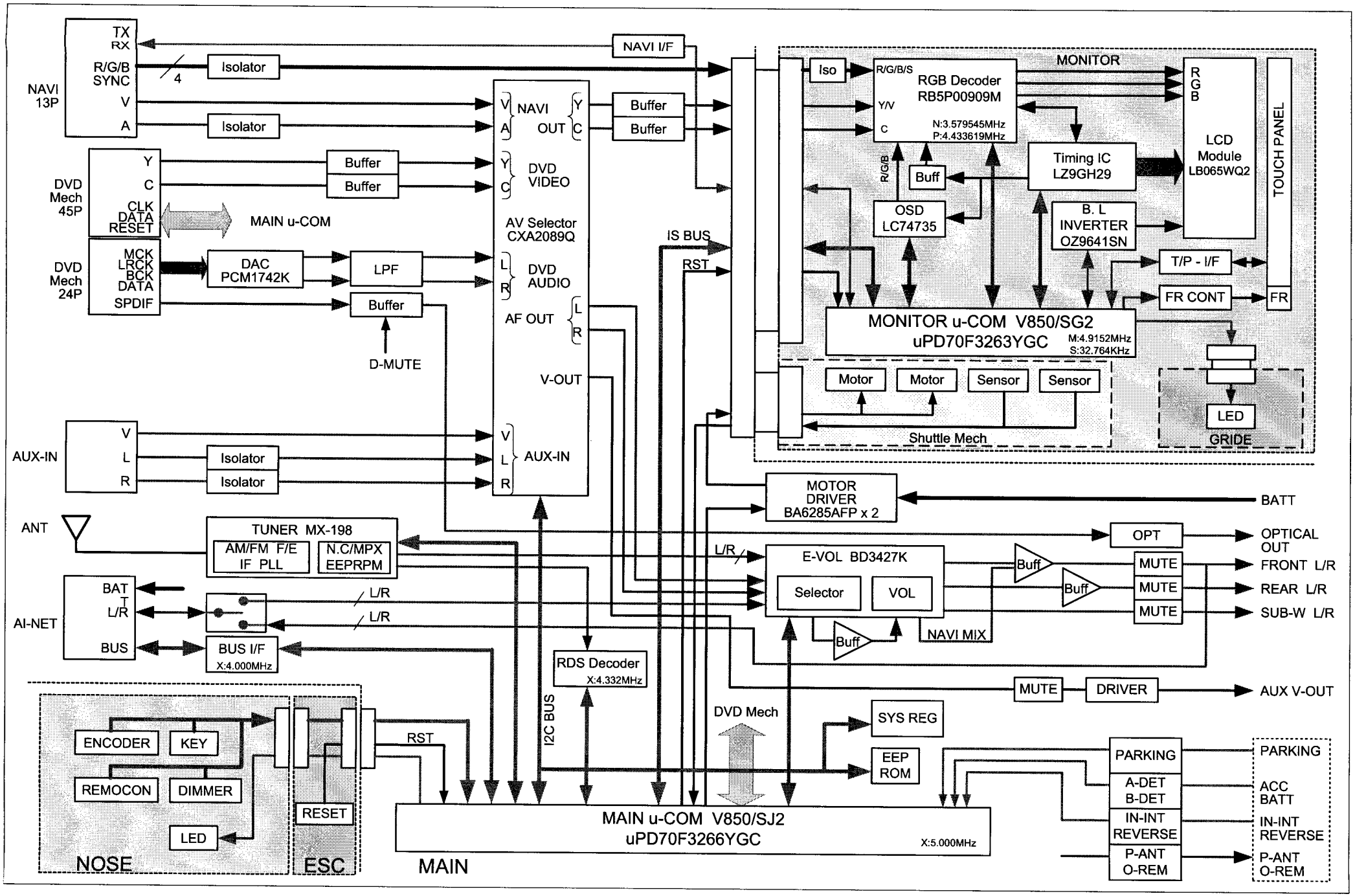


Figure 2

TO CONTENTS

Block Diagram < VISUAL / AUDIO / SYSTEM >



TO CONTENTS

Block Diagram < POWER SUPPLY >

BATT

MAIN PANEL

PWR BOX

Out:Measurement value when DISC outer play
In :Measurement value when DISC inner play

():Measurement value

STEPDN+7V BD9781HFP
6.76V~7.27V
3.5A/35W
1709mA
1886.9mW

STEPDN+4V BD9781HFP
3.88V~4.15V
3.5A/35W
1006.002mA
833mW

STEPDN+7V
(304mA 546.1mW)

STEPDN+4V
(695mA 654.6mW)

8.68V~9.35V
3.5A/35W
1722.45mA
2332mW

STEPDN+9V BD9781HFP

DC/DC Conv. AN8018SA +13V 5.5mA -16V
mA/135mW

SERVO+7V 2SA1797(Q) 1500mA (214mA)

SERVO+5V BA00ASFP 200mA 490mW (81mA 189.45mW)
4.82V~5.18V 1A/1300mW

DVD+2.8V BA00BC0WFP 340mA 482.8mW (325mA 461.5mW)
2.73V~2.9V 1A/1000mW

DVD+1.2V PQ012FZ01ZPH 340mA 588.2mW (325mA 562.3mW)
1.17V~1.23V 1A/8W

DVD+3.3V BA00BC0WFP 666mA 639.4mW (370mA 355.2mW)
3.19V~3.4V 1A/1000mW

DVD+5V NJM2860 9mA 41.4mW
4.75V~5.25V 60mA/250mW

DAC PCM1742K 3.3V:16mA 5V:9mA

DVD Mech

SERVO+7V 1500mA(MAX) Out:175mA In:214mA
SERVO+5V 200mA(MAX) Out:81mA In:78mA
DC 1.2V 340mA(MAX) Out:325mA In:318mA
DC 3.3V 650mA(MAX) Out:362mA In:370mA

BUZZER PKM13EPY-4000-A0

Ai-NET

ACC ON+5V TDA3664
18mA 60.3mW
4.95V~5.05V
300mA/350mW

Ai-NET I/F MB88385CPF 4mA

RDS+B FMC3A

RDS Decoder SAA6588T 14mA

REM-IN TC4S01F 0.0003mA(MAX)

Shuttle Mech

JL44A02A

MOTOR DRIVE BA6285AFP
Brake mode:63mA(MAX)
MOTOR:600mA(MAX)
1000mA/1450mW

MOTOR-LOAD 600mA(MAX)/8V
MOTOR-TILT 600mA(MAX)/8V
With no simultaneous operation

ACC+5V 5mA(MAX)

E-VOL BD3427K 30mA(MAX)
-> AUX-IN ISO NJM4558V 6mA(TYP) 9mA(MAX)
-> DVD A-LPF NJM4580V 6mA(TYP) 9mA(MAX)
-> NAVI A-ISO NJM4558V 6mA(TYP) 9mA(MAX)
-> Ai-NET A-ISO NJM4580V 6mA(TYP) 9mA(MAX)

AUDIO+9V_B BA00ASFP 75mA 550mW
8.67V~9.35V 1A/1300mW

AUDIO+9V_A BA00ASFP 107mA 784mW
8.67V~9.35V 1A/1300mW

VIDEO+7V BD7800FP 36mA 91.4mW
6.81V~7.19V 500mA/1300mW

AV Selector CXA2089Q 45mA(TYP) 62mA(MAX)

1/2 VCC NJM4580V 6mA(TYP) 9mA(MAX)

<- RGB Decoder Y-BUFFER 2SC2412K about 18mA
<- RGB Decoder C-BUFFER 2SC2412K about 18mA

AMP PANEL

SP PWR AMP TA8273
50W-4ch 9A(MAX)

AUDIO+B BA00ASFP
25mA(MAX)

PWR AMP MUTE CONT SW 2SB710A

System PWR

VDD+3.3V L5960(REG1)
114.5mA+* about1454.2mW+*
3.3V(typ) 700mA/ ? W

PWR ON L5960(HSD)
500mA about300mW
Voltage descent
MAX0.6V 1A/ ? mW

System PWR
All losses about 1892.8mW+*

P.ANT Tr
O.REM Tr
500mA(MAX)

ACC+3.3V SW FMC3A
MAIN u-COM V850/SJ2 55mA (MAX)
RESET S-80922CNMC 0.003mA (MAX)
EEPROM BR24L04F 2mA(MAX)
B-DET/A-DET

PARKING DTA143EKA 0.5mA
IN-INT DTA143EKA 0.5mA
REVERSE DCT124EKA 0.5mA
NAVI I/F TC74VHCT14AFT 1.5mA (MAX)

TUNER+8V BA08SFP 151.2mA 264.6mW
7.6V~8.4V 1A/1000mW

TUNER+B SW 2SB709A

S-METER BUFFER NJM2904M 1.2mA(MAX)
TUNER MX-198 8V:150mA(MAX) 10V:3mA(MAX)

3mA about18mW
TUNER+10 AN77L10M
9.6V~10.4V 200mA/650mW

OPT OUT

TOTX193
25mA(MAX

OPT+B

DIGITAL+5V NJM2860
26.35mA 121.2mW
4.75V~5.25V 60mA/250mW

-> DVD SPDIF-BUFFER TC7SET08FU 1.35mA(MAX)

DF PANEL

DIMMER SENSOR TPS850
4mA DIM+3.3V

ACC+5V NJM2880U1-05
7mA 30.8mW
4.95V~5.05V 300mA/350mW

REM+5V SW FMC3A

DIM+3.3V SW FMC3A

LED LED+9V
about 100mA

LED+9V SW 2SA1036K

REMOCON RS671
1.6mA(TYP)
2mA(MAX)

REM+5V

LCD -16V
LCD +13V
BL+B
STEPDN+9V

MONITOR PANEL

VDD3.3V

MONI u-COM V850/SG2 48mA (MAX)
Touch Panel CONT +*mA(MAX)

-> NAVI R-ISO 2SA1576/2SC4081 about 15mA
-> NAVI G-ISO 2SA1576/2SC4081 about 15mA
-> NAVI B-ISO 2SA1576/2SC4081 about 15mA
-> NAVI SYNC-ISO 2SA1576/2SC4081 about 15mA

TIMING IC LZ9GH29 15mA (MAX)
Sync.signal I/F TC7W34FU 0.01mA (MAX)
V-MUTE TC7SET32FU 0.02mA (MAX)
Phase correct NJM2107F 3mA (MAX)

MONITOR+7V BD7800FP
203mA 515.6mW
6.81V~7.19V
500mA/1300mW

27ohm-1/4 Pc:169mW
4.637V~5.737V

OSD+3.3V NJM2880U33 79mA 195.1mW
3.267V~3.333V 400mA/350mW

OSD LC74735
VDD1:37mA(MAX)
VDD2:22mA(MAX)
VDD3:20mA(MAX)

POW+5V BD7800FP 78.03mA 348mW
4.89V~5.14V 500mA/1000mW

DEC+5V NJM2880U1-05 64mA 171mW
4.95V~5.05V 300mA/350mW

RGB Decoder RB5P0090M
5V:VCC1:58mA(MAX)
5V:VCC2:6mA(MAX)
13V:VCC3:1.5mA(MAX)

LCD module

+5V
+13V
-16V

LB065WQ2
5V:VSH:60mA(MAX)
13V:VGH:1mA(MAX)
-10V:VGLDC:1mA(MAX)
-10.9V:VCC:1mA(MAX)
-16V:VSS:1mA(MAX)

GRIDE PANEL

LED
about 30mA

LCD+13V SW FMC3A

LCD-16V SW 2SD1782K

Resistance division -10.9V
Resistance division -10V

FR/BL+5V BD7800FP
16.4mA 123.1mW
4.89V~5.18V 500mA/
1000mW

11.2mA(MAX)
(202.5mA at moment)

Force Reactor CONT SW 2SB1132

BL Inverter OZ964ISN 4.2mA(MAX)

Open Lamp DET NJM2903V 1mA(MAX)

BL Consumption Current
Efficiency80% 9V x imA x 0.8=3.57W(MAX)
imA=496mA

CCFL (BackLight) BL+B: about 496mA(MAX)

TO CONTENTS

* Monitor Unit Block

Contents

Specifications	19 to 23
Parts Layout on P.W.Boards and Wiring Diagram	24 to 31
Schematic Diagram	32 to 48
Terminal Voltage of IC/ TR	49 to 86
Description of IC Terminal	87 to 98
Exploded View (Cabinet)	99 to 101
Exploded View (DVD Deck Mechanism) (DV37M15B)	102

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

TO CONTENTS

Specifications

< MONITOR SECTION >

Display System	Transparent type TN LCD
Drive System	TFT active matrix
Screen Size	6.5 inch
Active Display Area (H x V)	143.4 x 79.3mm
Display Resolution (H x V)	400 x 3(RGB) x 234dots
Dot Pitch (H x V)	0.1195 x 0.3389mm
Color Filter Geometry	R, G, B Vertical Stripe
Display Mode	Normally White
Display Color	Full Color
Backlight	Cold cathode fluorescent tube

< FM RADIO >

Intermediate Frequency	10.7±0.1MHz
Frequency Range	87.5 to 108.0MHz
Usable Sensitivity (30dB S/N, Mono, at 98.1MHz)	20.2dBf
-3dB Limiting Sensitivity (at 98.1MHz)	20.2dBf
Residual Noise (Ref. 400Hz, at 98.1MHz)	25±10dB
S/N Ratio (at 98.1MHz)	Stereo : 50dB Mono : 55dB
Image Rejection (at 106.1MHz)	40dB
IF Rejection (at 90.1MHz)	60dB
Distortion (Input 60dBu, at 98.1MHz)	1.5%
Frequency Response (Ref. 400Hz, at 98.1MHz)	100Hz : 0±3dB 10kHz : -10±3dB
Stereo Separation (1kHz, at 98.1MHz)	20dB
PS Sensitivity (at 98.1MHz)	36.2dBf

< MW RADIO >

Intermediate Frequency	1st : 10.8MHz 2nd : 450kHz
Frequency Range	531 to 1,602kHz
Usable Sensitivity (20dB S/N, at 999kHz)	36dB
S/N Ratio (at 999kHz)	44dB
Image Rejection (2nd IF, at 1,404kHz)	40dB
IF Rejection (2nd IF, at 603kHz)	40dB
Distortion (at 999kHz)	1.5%
Frequency Response (Ref. 400Hz, at 999kHz)	100Hz : -3±4dB 4kHz : -14±6dB

TO CONTENTS

< LW RADIO >

Intermediate Frequency	1st : 10.8MHz 2nd : 450kHz
Frequency Range	153 to 281kHz
Usable Sensitivity (20dB S/N, at 216kHz)	43dB
S/N Ratio (at 216kHz)	40dB
Image Rejection (1st IF, at 270kHz)	40dB
IF Rejection (2nd IF, at 162kHz)	50dB
Distortion (at 216kHz)	1.5%
Frequency Response (Ref. 400Hz, at 216kHz)	100Hz : -3±4dB 4kHz : -14±6dB

< CD/DVD SECTION >

System	Optical (DVD System)

(CD AUDIO)

Channel Balance (1kHz, TCD-782)	0±3dB
Distortion (1kHz, TCD-782)	0.3%
Frequency Response (Ref. 1kHz, TCD-782)	17Hz : -1±4dB 127Hz : 0±2dB 10.007kHz : 0±2dB 19.997kHz : 0±4dB
S/N Ratio (TCD-782)	80dB
Separation (1kHz, TCD-782)	65dB
De-Emphasis (Ref. 1kHz, TCD-782)	4kHz : -20±3dB 16kHz : -20±3dB

(MP-3 AUDIO)

Distortion (1kHz, SCD-4419 or 5100 (128kbps))	0.3%

(WMA AUDIO)

Distortion (1kHz, SCD-5100 (128kbps))	0.3%

(DVD-VIDEO)

***AUDIO Pre-out** (Title Number 4/Audio Stream 2/LPCM 48k)

Channel Balance (1kHz, TDV-540A (Chapter1))	0±3dB
Distortion (1kHz, TDV-540A (Chapter1))	0.3%
Frequency Response (Ref. 1kHz, TDV-540A (Chapter1))	Chapter6 : 17Hz : -1±4dB Chapter8 : 127Hz : 0±2dB Chapter13 : 10.007kHz : 0±2dB Chapter15 : 19.997kHz : 0±4dB
S/N Ratio (TDV-540A (Chapter1&2))	80dB
Separation (1kHz, TDV-540A (Chapter3&4))	65dB

TO CONTENTS

***VIDEO AUX-OUT** (PAL/Terminating Resistance : 75 ohm)

Luminance Level PAL : (V-509, Title4/Chapter3, White100%, SUBT.OFF)	1±0.15V
Luminance Frequency Response PAL : (4.7MHz, V-509, Title5/Chapter2, MultiBurst60%, SUBT.OFF)	-1±2dB
Luminance Signal S/N Ratio PAL : (V-509, Title4/Chapter4, Gray50%, SUBT.OFF)	50dB

(DVD-AUDIO)

Channel Balance (997Hz, V-612 (Track1 Lf,Rf/48kHz,24bit))	0±3dB
Distortion (997Hz, V-612)	Track1 Lf,Rf/48kHz,24bit : 0.3% Track4 Lf,Rf/96kHz,24bit : 0.3% Track7 Lf,Rf/192kHz,24bit : 0.3%
Frequency Response (Ref. 997Hz, V-612 (Track20 Lf,Rf/192kHz,24bit))	17Hz (Track22 Lf,Rf/192kHz,24bit) : -1±3dB 127Hz (Track21 Lf,Rf/192kHz,24bit) : 0±2dB 10.007kHz (Track18 Lf,Rf/192kHz,24bit) : 0±2dB 19.997kHz (Track17 Lf,Rf/192kHz,24bit) : 0±2dB
S/N Ratio (997Hz, V-612 (Track7&9 Lf,Rf/192kHz,24bit))	80dB
Separation (997Hz, V-612 (Track25&26 Lf,Rf/192kHz,24bit))	65dB

(VIDEO-CD)

***AUDIO** (MPEG Audio)

Channel Balance (1kHz, TVD-581A (Track1))	0±3dB
Distortion (1kHz, TVD-581A (Track1))	0.3%
Frequency Response (Ref. 1kHz, TVD-581A (Track1))	Track7 : 21Hz : -1±4dB Track8 : 127Hz : 0±2dB Track10 : 10.007kHz : 0±2dB Track13 : 19.997kHz : 0±4dB
S/N Ratio (TVD-581A (Track1&2))	80dB
Separation (1kHz, TVD-581A (Track3&4))	65dB

***VIDEO** (PAL/Terminating Resistance : 75 ohm)

Luminance Level PAL : (HLV-402, Track22, White100%)	1±0.15V
Luminance Frequency Response PAL : (2MHz, HLV-402, Track21, MultiBurst)	-2±2dB
Luminance Signal S/N Ratio PAL : (HLV-402, Track20, Gray50%)	45dB

TO CONTENTS

< DVD Deck Mechanism >

Test Disc	DVD-VIDEO : for Single layer disc valuation : ALMEDIO* TDV-520C for Dual layer disc valuation : ALMEDIO* TDV-540C DVD-AUDIO : ALMEDIO* TDA-591 DVD-R : ALMEDIO* TDV-R582W / TEAC MDVD-2101 DVD-RW : ALMEDIO* TDV-MW582W / TEAC MDVD-3101 DVD+R : ALMEDIO* TDV-PR582W DVD+RW : ALMEDIO* TDV-PM582W (* Former maker name : A-BEX, New maker name : ALMEDIO)
RF Waveform Amplitude	1.125±0.5Vp-p
Quantity of Jitter (all-T standard deviation)	Less than 14.0%
Measurement Angle Range	Front and Rear : -20°~50° Right and Left : ±20°
Laser Current	Initial value ±2mA (The initial value of laser current is indicated on the Flexible Cable.)

< Pickup >

Wave Length	DVD : 665nm CD : 785nm
Laser Power	CLASS II

< GENERAL >

Power Supply	DC14.4V
Pre Output (TCD-782 (1kHz, 0dB), T.H.D.1%, FRONT/REAR/SUB.W (SUB.W: STEP 15)) / Impedance	+6(2V) ±2.5dBV / ch / 10k ohm
Back Up Current	5mA
Dimensions (W x H x D)	Chassis : 178 x 50 x 165mm Nose (Closed) : 170 x 47.3 x 41.3mm Nose (Maximum Projected Position) : 170 x 47.3 x 169.4mm
Weight	2.6kg

NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

TO CONTENTS

< Special DISC Playability >

Item		Use Disc	Specification
DVD	Scratch disc playability	DVD-Video : ALMEDIO* TDV-541C / TDV-521C DVD-R : ALMEDIO* TDV-R521CW DVD-RW : ALMEDIO* TDV-MW521CW DVD+R : ALMEDIO* TDV-PR521CW DVD+RW : ALMEDIO* TDV-PM521CW	More than 0.8mm
	Defects disc playability (Black dot)	DVD-Video : ALMEDIO* TDV-545C DVD-R : ALMEDIO* TDV-R525CW DVD-RW : ALMEDIO* TDV-MW525CW	More than 0.6mm
	Defects disc playability (Fingerprint)	DVD-Video : ALMEDIO* TDV-545C DVD-R : ALMEDIO* TDV-R525CW DVD-RW : ALMEDIO* TDV-MW525CW	More than ø65µm
	Vertical Deviation disc playability	DVD-Video : ALMEDIO* TDV-561C / TDV-563C DVD-R : ALMEDIO* TDV-R531CW / TDV-R533CW DVD-RW : ALMEDIO* TDV-MW531CW / TDV-MW533CW DVD+R : ALMEDIO* TDV-PR531CW / TDV-PR533CW DVD+RW : ALMEDIO* TDV-PW531CW / TDV-PW533CW	±0.2mm
	Eccentric disc playability	DVD-Video : ALMEDIO* TDV-551C / TDV-553C DVD-R : ALMEDIO* TDV-R511CW / TDV-R513CW DVD-RW : ALMEDIO* TDV-MW511CW / TDV-MW513CW DVD+R : ALMEDIO* TDV-PR511CW / TDV-PR513CW DVD+RW : ALMEDIO* TDV-PW511CW / TDV-PW513CW	50µm
	DVD-R / DVD-RW playability [Chap.1&16]	DVD-R : ALMEDIO* TDV-R582W / TEAC MDVD-2101 DVD-RW : ALMEDIO* TDV-MW582W / TEAC MDVD-3101	Reproducible
	DVD+R / DVD+RW playability [Chap.1&16]	DVD+R : ALMEDIO* TDV-PR582W DVD+RW : ALMEDIO* TDV-PW582W	Reproducible
CD-DA	Scratch disc playability	CD-DA : ALMEDIO* TCD-721 CD-R : ALMEDIO* TCD-R021W CD-RW : ALMEDIO* TCD-W021W	More than 0.8mm
	Defects disc playability (Inetrruption)	CD-DA : ALMEDIO* TCD-725B CD-R : ALMEDIO* TCD-R025W CD-RW : ALMEDIO* TCD-W025W	More than 0.5mm
	Defects disc playability (Black dot)	CD-DA : ALMEDIO* TCD-725B CD-R : ALMEDIO* TCD-R025W CD-RW : ALMEDIO* TCD-W025W	More than 0.6mm
	Defects disc playability (Fingerprint)	CD-DA : ALMEDIO* TCD-725B CD-R : ALMEDIO* TCD-R025W CD-RW : ALMEDIO* TCD-W025W	More than ø65µm
	Vertical Deviation disc playability	CD-DA : ALMEDIO* TCD-732RA CD-R : ALMEDIO* TCD-R032W CD-RW : ALMEDIO* TCD-W032W	±0.3mm
	Eccentric disc playability	CD-DA : ALMEDIO* TCD-712R / TCD-713R	140µm
		CD-R : ALMEDIO* TCD-R011W / TCD-R012W CD-RW : ALMEDIO* TCD-W011W / TCD-W012W	70µm
	CD-R playability [Track 1&23] Quantity of Jitter (3T standard deviation)	CD-R : ALMEDIO* TCD-R082LMR	Less than 9.5nsec
	CD-RW playability [Track 1&23] Quantity of Jitter (3T standard deviation)	CD-RW : ALMEDIO* TCD-W082L / TCD-W082H	Less than 9.5nsec

(* Former maker name : A-BEX, New maker name : ALMEDIO)

TO CONTENTS

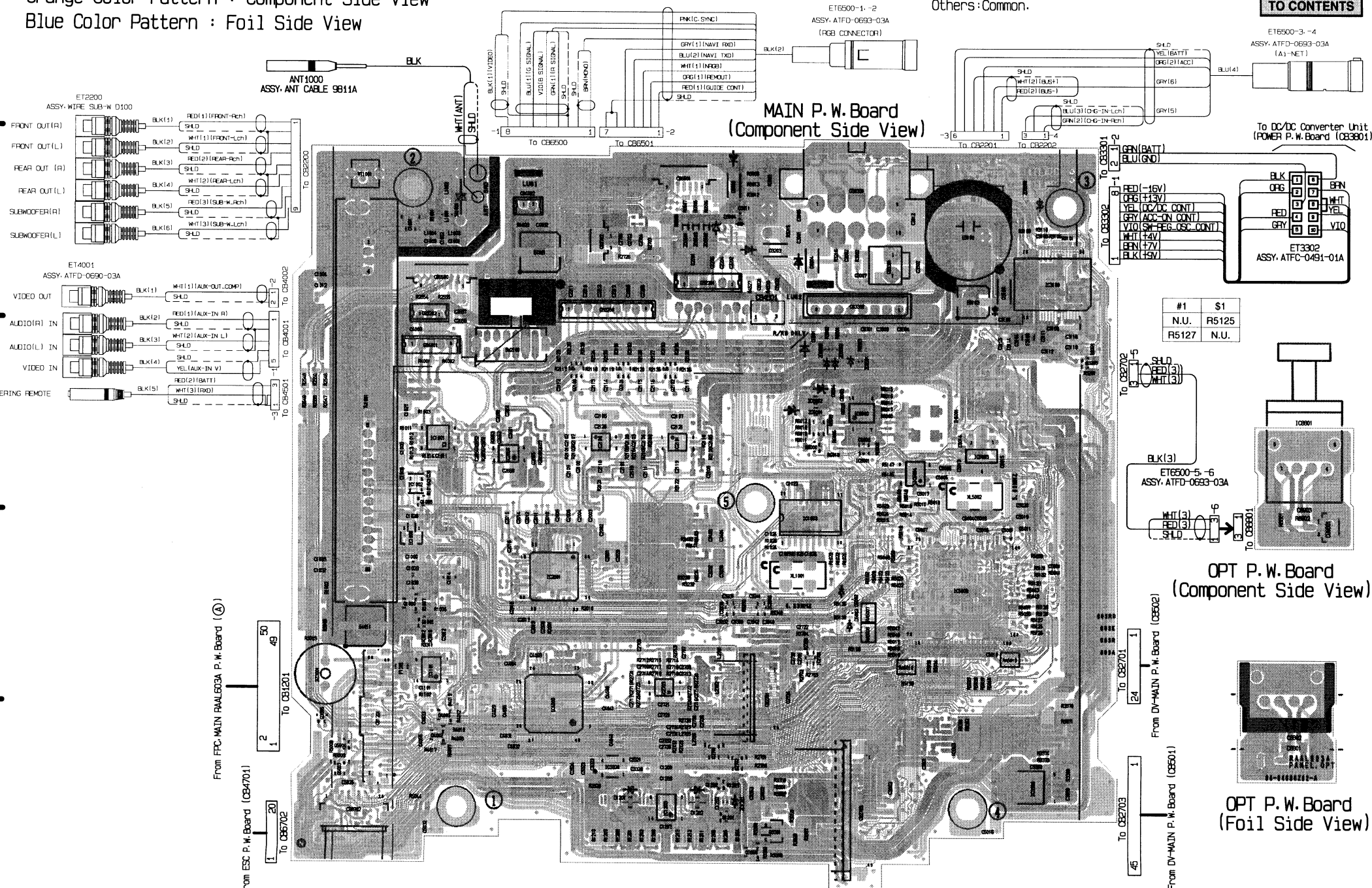
Parts Layout on P.W.Boards and Wiring Diagram(1/8)

IVA-D100R/IVA-D100RB

Orange Color Pattern : Component Side View
Blue Color Pattern : Foil Side View

NOTE:#1:For IVA-D100R Model Only.
$1:For IVA-D100RB Model Only.
Others:Common.

TO CONTENTS

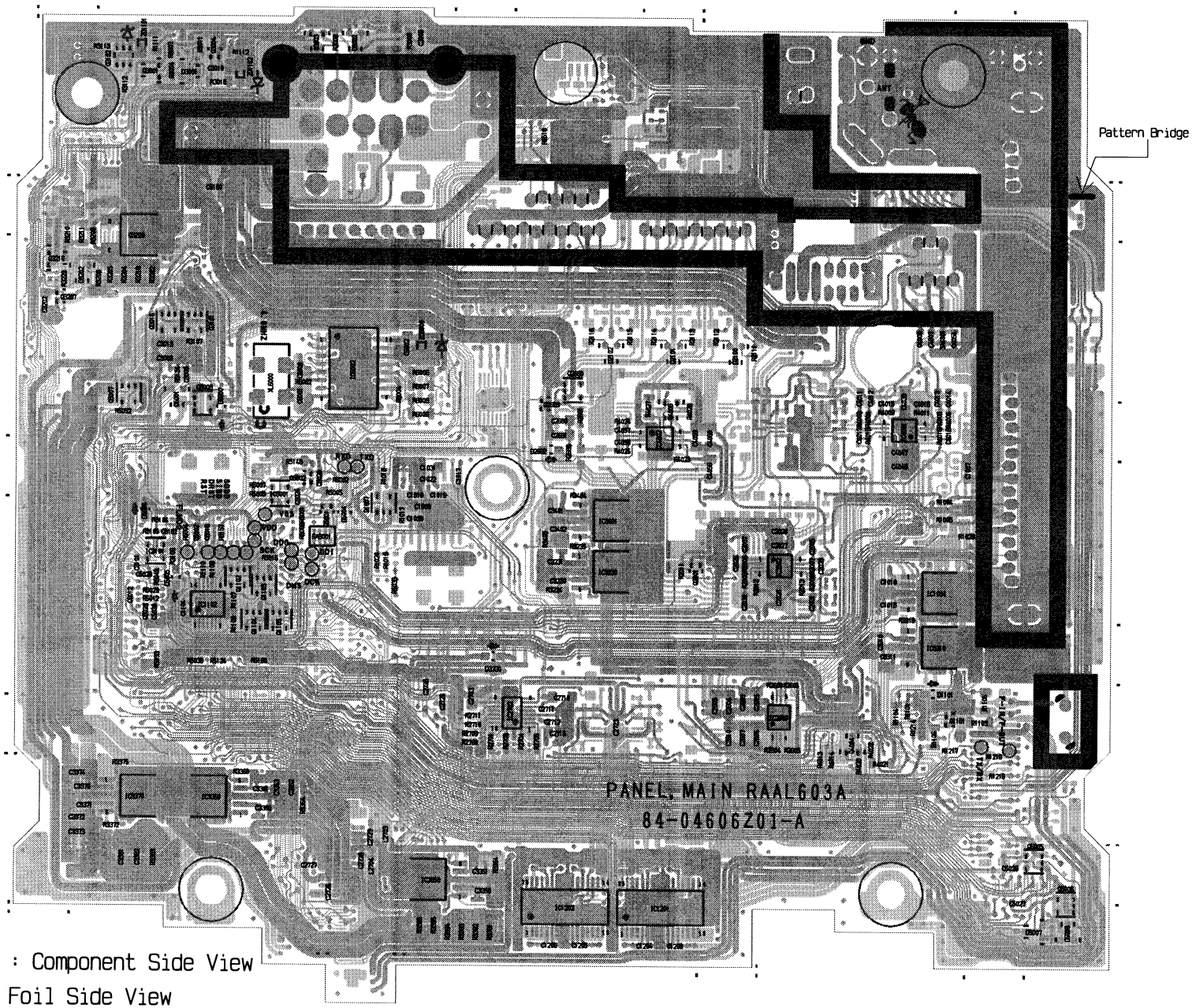


#1	$1
N.U.	R5125
R5127	N.U.

Parts Layout on P.W.Boards and Wiring Diagram(2/8)

TO CONTENTS

MAIN P.W.Board (Foil Side View)



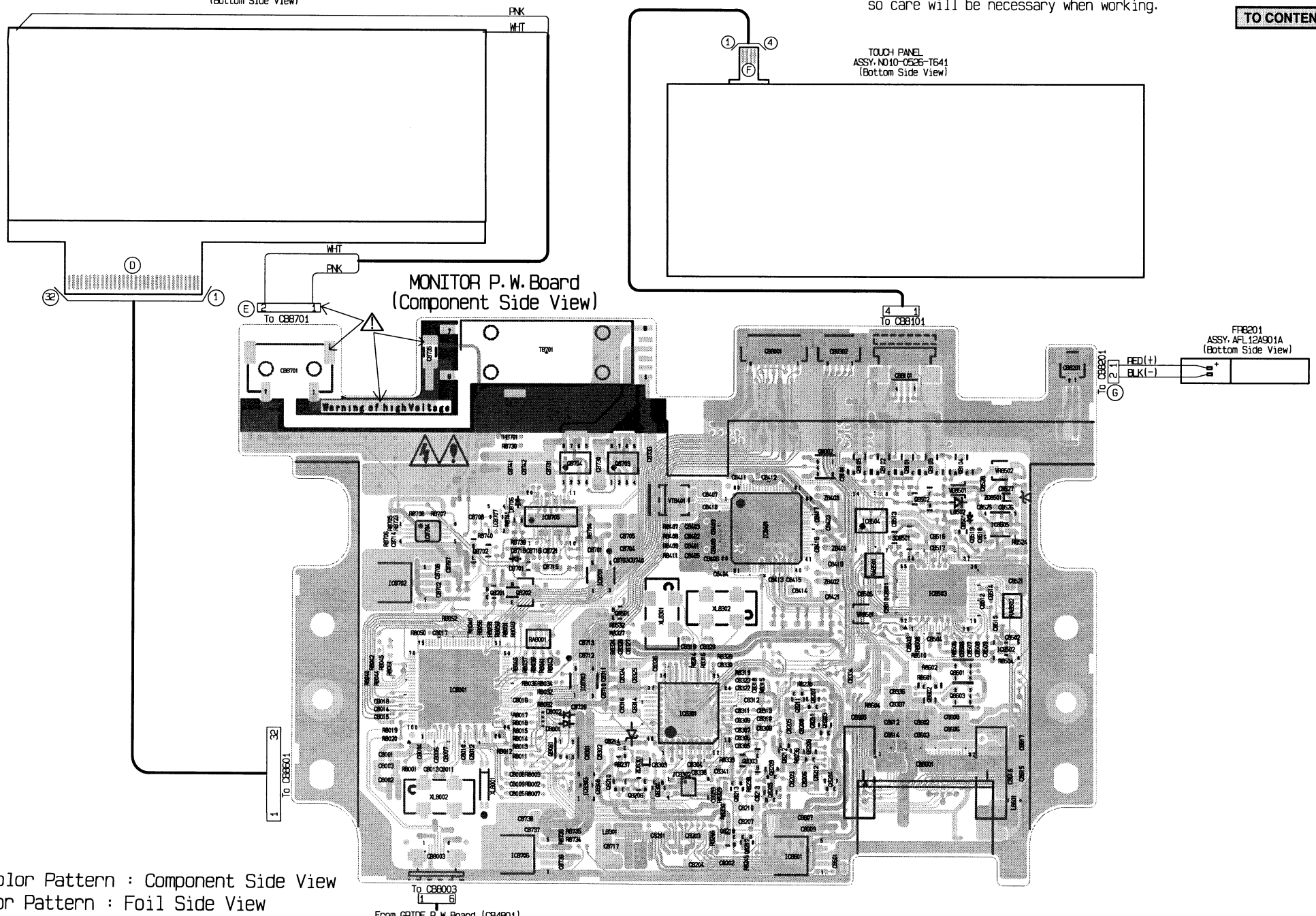
Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(3/8)

Caution: The part marked with ⚠ is generating a high voltage, so care will be necessary when working.

TO CONTENTS



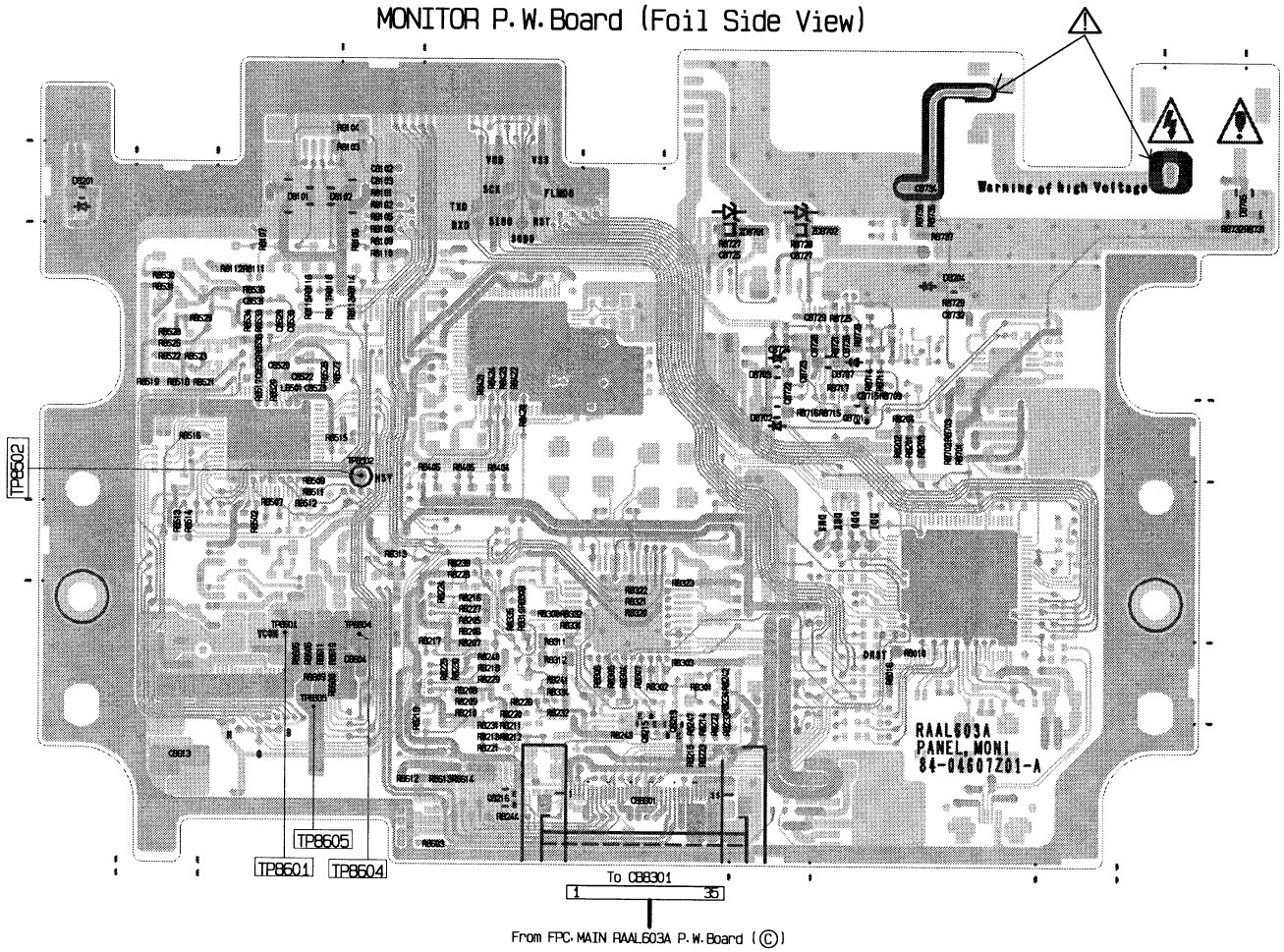
Orange Color Pattern : Component Side View
Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(4/8)

Caution:The part marked with ⚠ is generating a high voltage,
so care will be necessary when working.

TO CONTENTS

MONITOR P.W.Board (Foil Side View)



Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(5/8)

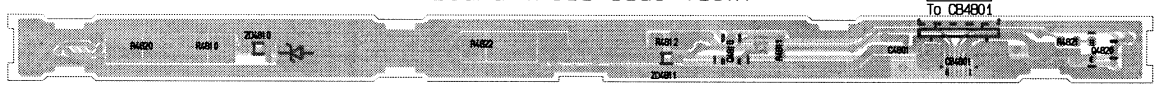
NOTE: #1:For IVA-D100R Model Only.
$1:For IVA-D100RB Model Only.
Others:Common.

TO CONTENTS

GRIDE P.W.Board (Component Side View)

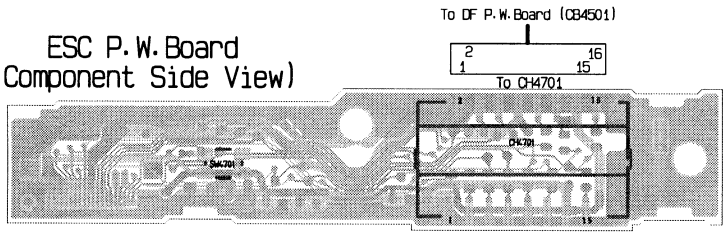
#1	$1
LD4820	N.U.
LD4821	N.U.
LD4822	N.U.

GRIDE P.W.Board (Foil Side View)

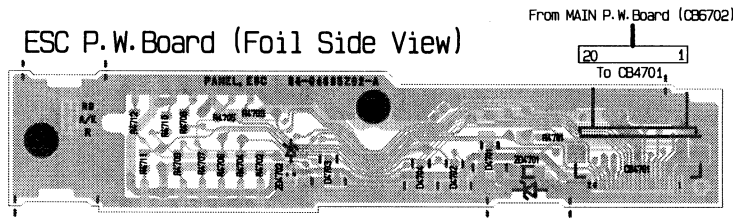


#1	$1
Q4820	N.U.
R4820	N.U.
R4821	N.U.
R4822	N.U.
N.U.	ZD4810
N.U.	ZD4811

ESC P.W.Board (Component Side View)

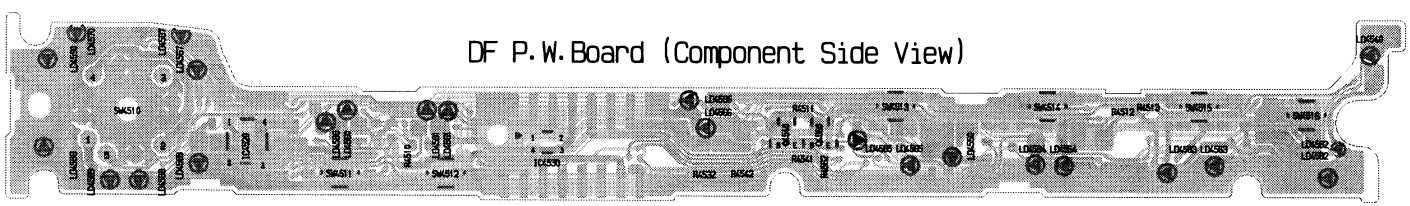


ESC P.W.Board (Foil Side View)



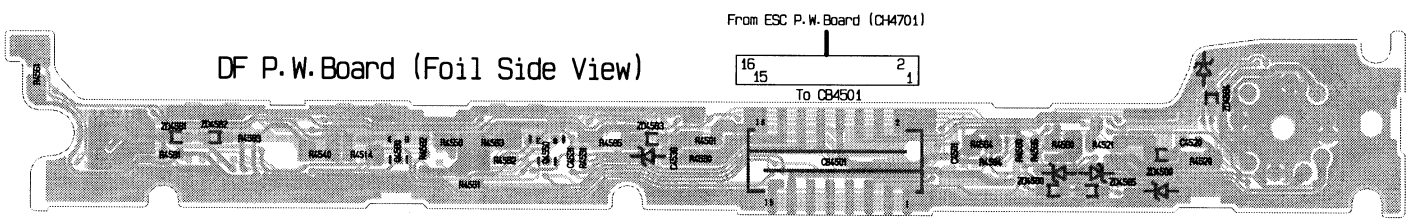
#1	$1
R4708	N.U.

DF P.W.Board (Component Side View)



#1	$1
LD4560	N.U.
LD4561	N.U.
LD4562	N.U.
LD4563	N.U.
LD4564	N.U.
LD4565	N.U.
LD4566	N.U.
LD4567	N.U.
LD4568	N.U.
LD4569	N.U.
LD4570	N.U.
Q4560	N.U.
R4562	N.U.

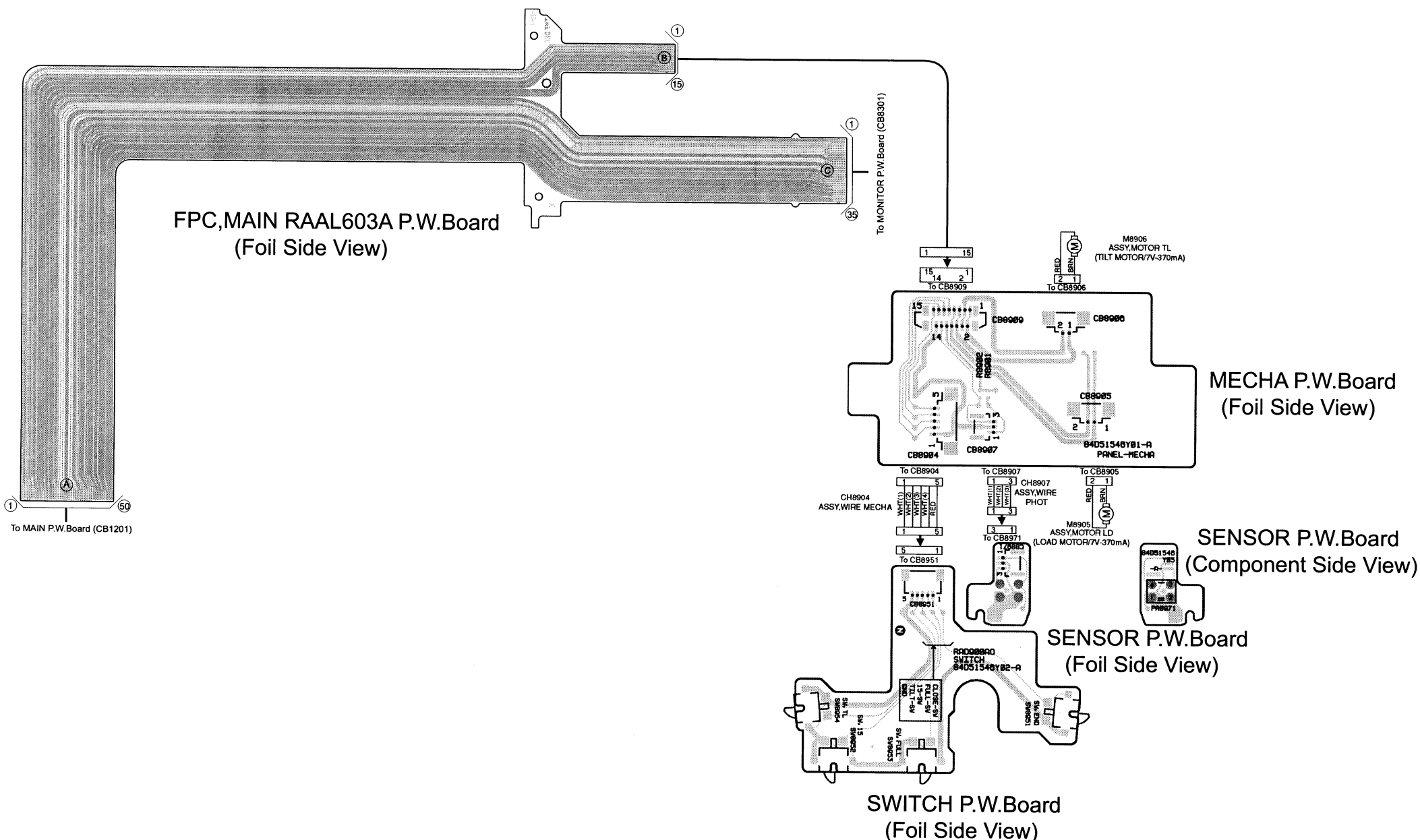
DF P.W.Board (Foil Side View)



#1	$1
R4560	N.U.
R4561	N.U.
R4563	N.U.
R4564	N.U.

Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

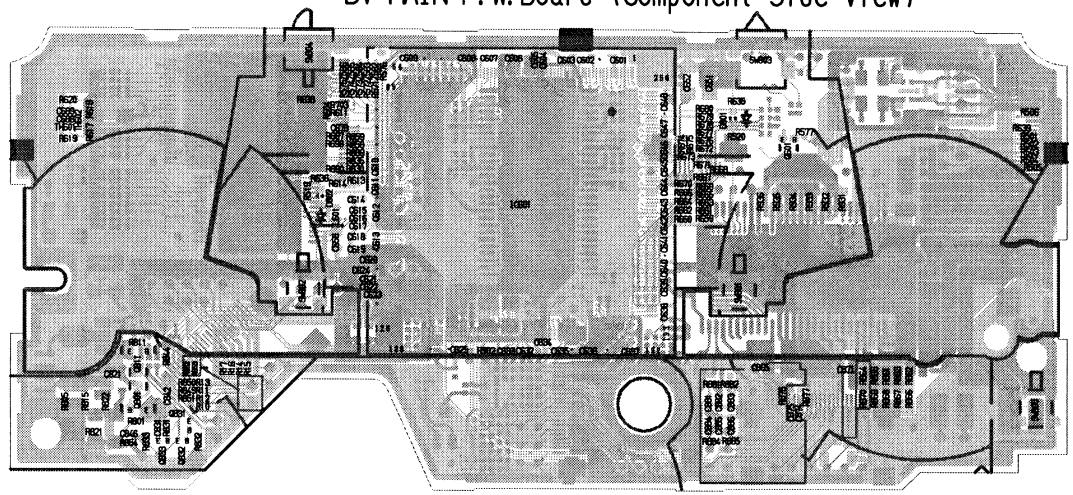


Orange Color Pattern:Component Side Pattern
Blue Color Pattern:Foil Side Pattern

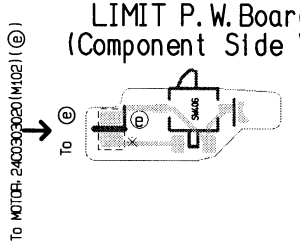
Parts Layout on P.W.Boards and Wiring Diagram(7/8)

TO CONTENTS

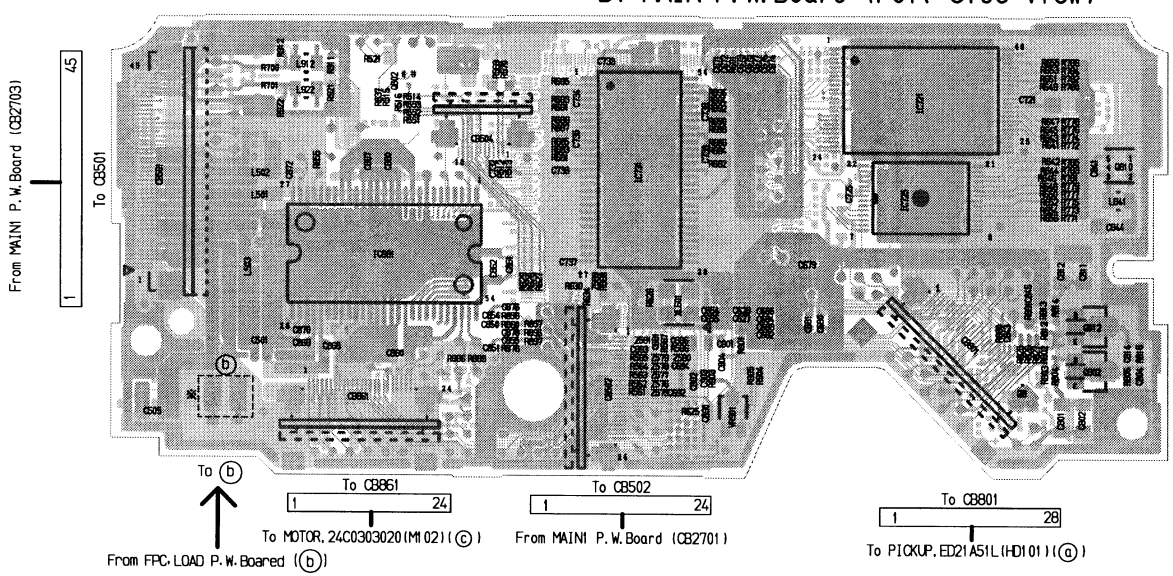
DV-MAIN P.W.Board (Component Side View)



LIMIT P.W.Board (Component Side View)

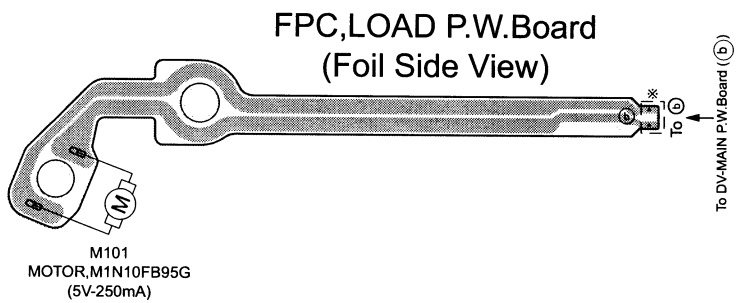


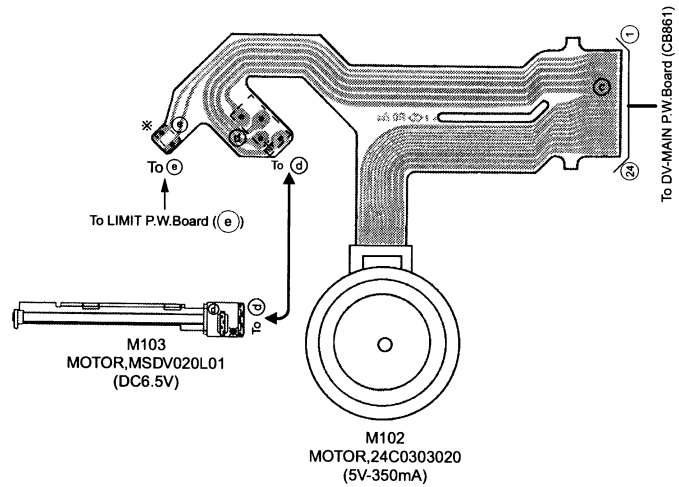
DV-MAIN P.W.Board (Foil Side View)

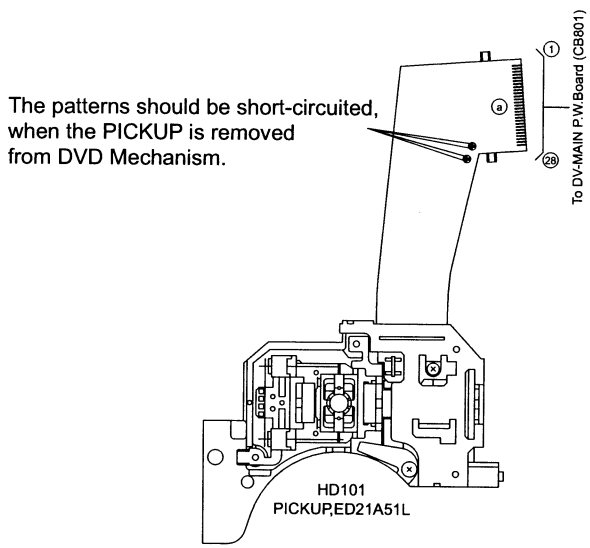


Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View







Blue Color Pattern:Foil Side Pattern

Schematic Diagram(1/17)

IVA-D100R/IVA-D100RB

TUNER+8V POWER SUPPLY

TUNER+10V POWER SUPPLY

S-METER BUFFER

RDS+B SWITCH

RDS DECODER

NAVI INTERFACE BUFFER

REMOCON OUT SELECTOR

LEVEL SHIFT

MOTOR DRIVER

REMOUT AUX/NAVI				
AUX_REM-SEL_A	AUX_REM-SEL_B	NAVI_REM-SEL_A	NAVI_REM-SEL_B	OUT PUT
L	L	L	L	ALL OFF
H	L	L	L	REM-IN SIGNAL to REMOUT-AUX
L	H	L	L	REM-OUT SIGNAL to REMOUT-AUX
L	L	H	L	REM-IN SIGNAL to NAVI-REM
L	L	L	H	REM-OUT SIGNAL to NAV-REM

INPUT		OUTPUT	
FIN	RIN	OUT1	OUT2
L	L	OP	OP
L	H	L	H
H	L	H	L
H	H	L	L

MAIN P.W.Board(1/6)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD | TO PARTS LIST | TO CONTENTS

Schematic Diagram(2/17)

IVA-D100R/IVA-D100RB

ACC ON +5V POWER SUPPLY

SW VDD+3.3V SWITCH

Ai-NET BUS

LEVEL SHIFT

LED+9V SWITCH

REM+5V SWITCH

DIM+3R3V SWITCH

EEPROM

STEERING REMOCON

MAIN μ-COM

NOTE:#1:For IVA-D100R Model Only,
$1:For IVA-D100RB Model Only,
Others:Common.

MAIN P.W.Board(2/6)
NOTE:N.U.is Not Used Parts.

Schematic Diagram(3/17)

IVA-D100R/IVA-D100RB

MAIN P.W.Board(3/6)
NOTE:N.U.is Not Used Parts.

Schematic Diagram(4/17)

IVA-D100R/IVA-D100RB

MAIN P.W.Board(4/6)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD | TO PARTS LIST | TO CONTENTS

Schematic Diagram(5/17)

IVA-D100R/IVA-D100RB

POWER ANT SWITCH & CURRENT LIMIT

SYSTEM REGULATOR POWER SUPPLY

ACC+3.3V SWITCH

BAT-DET1
[Detect]8.3V(typ)
[Hysterisys]0.5V

RESET

RESET SWITCH

BATT-DET

ACC-DET

PARKING

IN-INT

REVERSE

BUZZER CONT

A-MUTE DRIVE

AUDIO+9V_A POWER SUPPLY

★ACC Detection Setup
Vref_IGN=1.245V
Detection Voltage Setup
ottVdet=(Vref_IGN-0.07)×((R3013+R3012)/R3012)
=7.05V
Hysteresis
VhysIGN=0.07×((R3013+R3012)/R3012)
=0.42V

MAIN P.W.Board(5/6)
NOTE:N.U.is Not Used Parts.

Schematic Diagram(6/17)

IVA-D100R/IVA-D100RB

AUDIO+9V_B POWER SUPPLY

IC3401 BA00ASFP

Vo=Vcx(R1+R2)/R1
Vc=1.225
R2=13k
R1=2k+47=2.047k
Vo=1.225x(2.047k+13k)/2.047k
Vo=9.00V

R1 recommends about 2.2k.
R2 recommends 2.8k or more.

POWER ON CONT

BATT 001-F3;002-A1;003-F2;004-C4;005-F1

GND (P-GND)

POWER-ON_CONT 002-E1;005-A4

AUDIO+9V_A 004-C2;005-A4

STEPDN+9V 001-F3;002-B1;002-F2;005-F1;006-F2

STEPDN+7V 005-F1

STEPDN+4V 005-F1

GND (REG GND)

003-A2;004-C2 AUDIO+9V_B

GND (A-GND)

GND (B1-GND)

GND (SD9-GND)

001-F3;002-B1;002-F2;005-F1;006-A2 STEPDN+9V

VIDEO+7V POWER SUPPLY

IC3310 BD7800FP

Vo=Vcx(R1+R2)/R1
Vc=0.75
R2=270k
R1=30k+2.4K=32.4k
Vo=0.75x(32.4k+270k)/32.4k
Vo=7.00V

R1 recommends about 30k.

POWER_ON CONT

ACC+5V POWER SUPPLY

IC3320 NJM2880U1-05

ACC-ON CONT

DVD+5V POWER SUPPLY

D3330 1SS355

IC3330 NJM2880F3-05

DVD+3.3V CONT

DIGITAL+5V POWER SUPPLY

IC3340 NJM2880F3-05

DIGITAL+5V CONT

004-A4 DIGITAL+5V

GND (D5-GND)

004-C3 DVD+5V

GND (DVD5-GND)

001-F3;002-F3 ACC+5V

GND (ACC5-GND)

004-C2 VIDEO+7V

GND (V-GND)

DVD+3R3V_CONT 002-F3

DVD+1R2V_CONT 002-F3

DVD+2.80V POWER SUPPLY

IC3370 BA00BC0WFP

Vo=Vcx(R1+R2)/R1
Vc=1.250
R2=15k
R1=12k
Vo=1.25x(12k+15k)/12k
Vo=2.81V

DVD+1.2V CONT

R1 recommends about 30 from 150k.
R2 recommends 6k ro more.

DVD+1.2V POWER SUPPLY

IC3380 P0012FZ01ZPH

004-B2 DVD+1R2V

GND (D-GND)

SERVO+5V POWER SUPPLY

IC3350 BA00ASFP

Vo=Vcx(R1+R2)/R1
Vc=1.225
R2=11k
R1=3.3k+270=3.57k
Vo=1.225x(3.57k+11k)/3.57k
Vo=5.00V

SERVO+5V_CONT 002-F3

SERVO+5V CONT

R1 recommends about 2.2k
R2 recommends 2.8k ro more.

IC3360 BA00BC0WFP

Vo=Vcx(R1+R2)/R1
Vc=1.250
R2=9.1k
R1=470+5.1k=5.57k
Vo=1.25x(5.57k+9.1k)/5.57k
Vo=3.29V

DVD+3.3V CONT

R1 recommends about 30 from 150k
R2 recommends 6k or more.

DVD+3.3V POWER SUPPLY

004-C3 DVD+3R3V

GND (DVD3-GND)

004-B1 SERVO+5V

GND (SERVO-GND)

SERVO+7V CONT(TO:DVD-MECH)

Q3391 2SA1797

Q3390 2SC2412K

TP3390

SERVO+7V_CONT 002-F3

004-B1 SERVO+7V

GND (SERVO-GND)

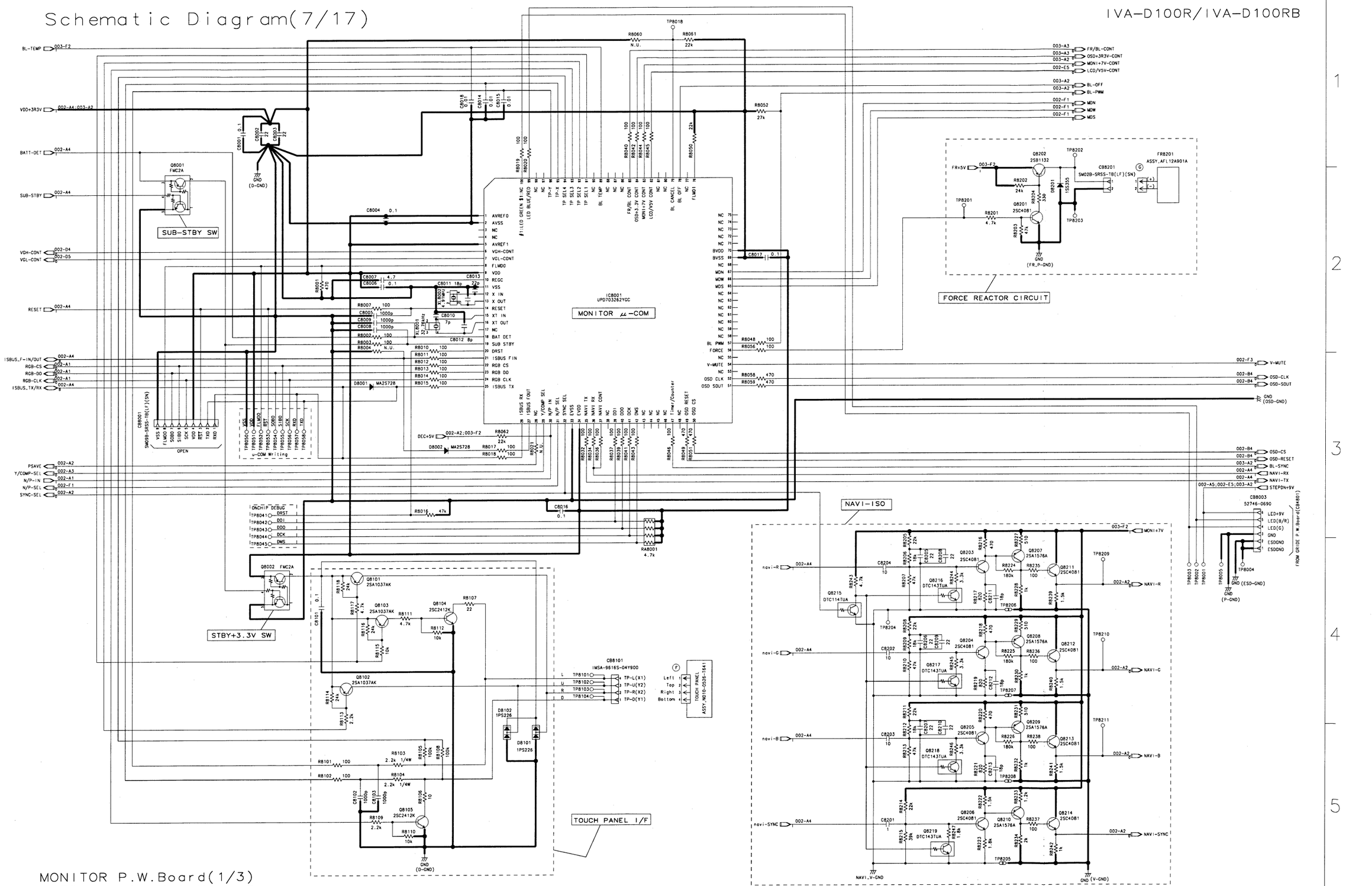
SERVO+7V CONT SWITCH

MAIN P.W.Board(6/6)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD | TO PARTS LIST | TO CONTENTS

Schematic Diagram(7/17)

IVA-D100R/IVA-D100RB

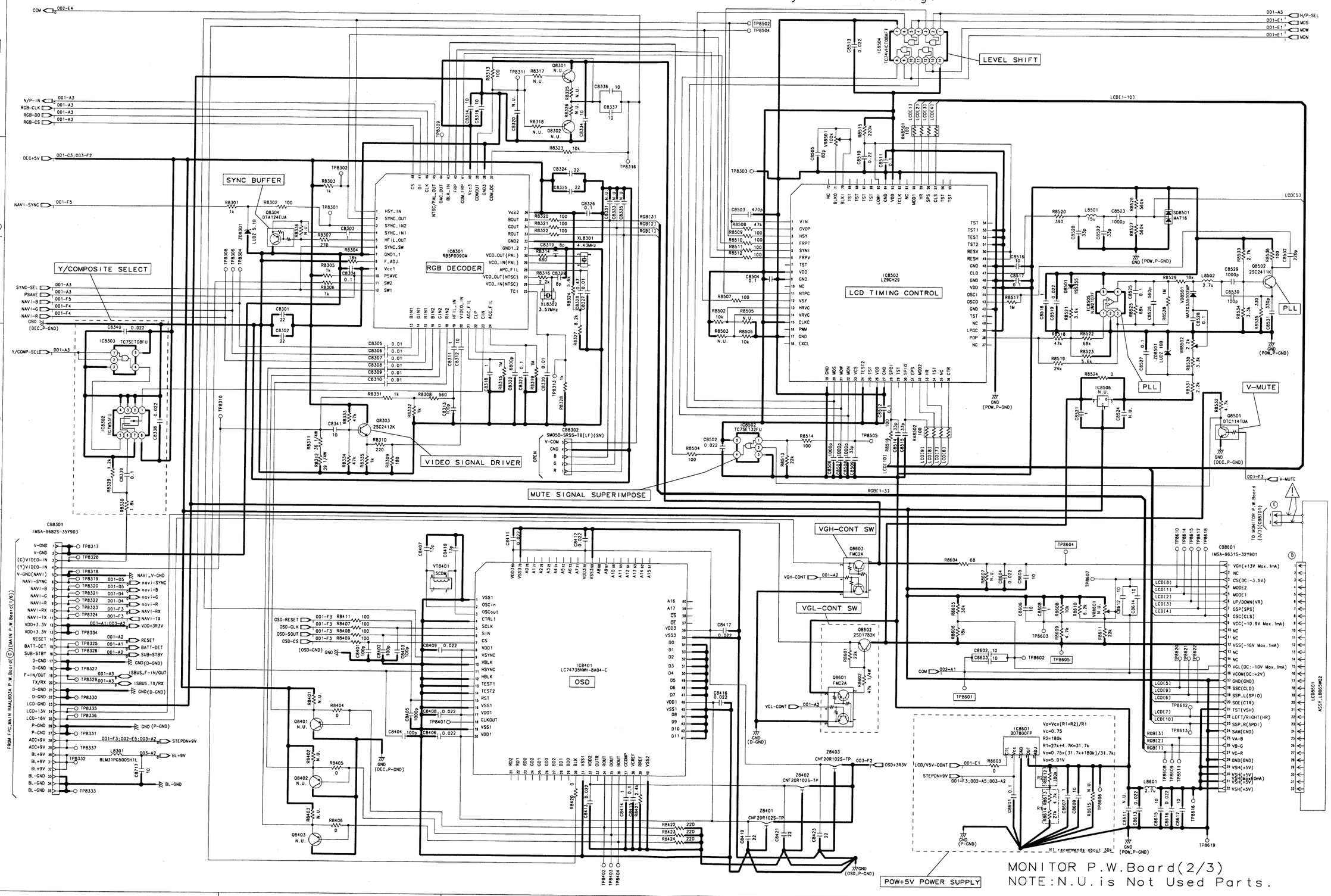


MONITOR P.W.Board(1/3)
NOTE:N.U.is Not Used Parts.

Schematic Diagram(8/17)

Caution:The part marked with ⚠ is generating a high voltage, so care will be necessary when working.

IVA-D100R/IVA-D100RB



TO P. W. BOARD | TO PARTS LIST | TO CONTENTS

Schematic Diagram(9/17)

IVA-D100R/IVA-D100RB

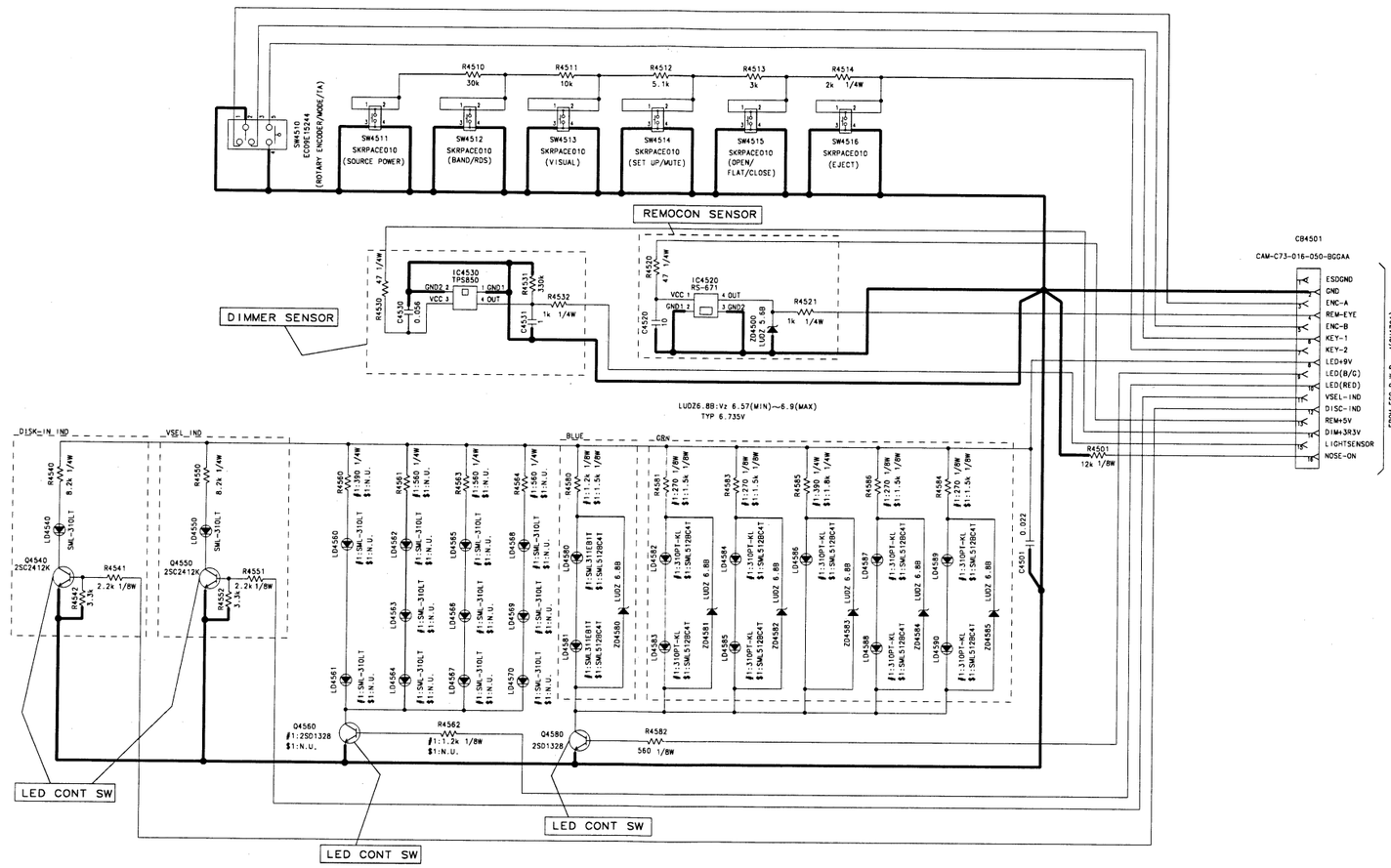
Caution:The part marked with ⚠ is generating a high voltage,
so care will be necessary when working.

MONITOR P.W.Board(3/3)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD | TO PARTS LIST | TO CONTENTS

Schematic Diagram(10/17)

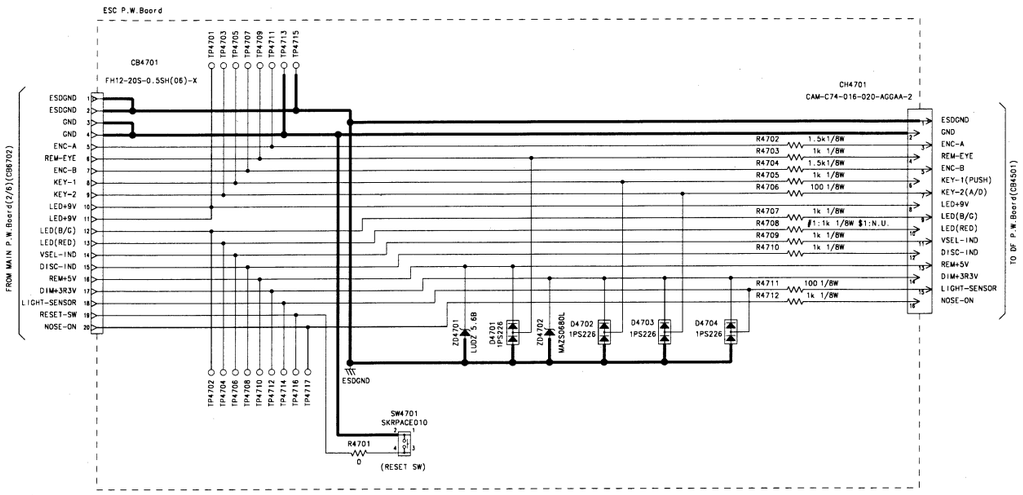
NOTE:#1:For IVA-D100R Model Only,
$1:For IVA-D100RB Model Only,
Others:Common.



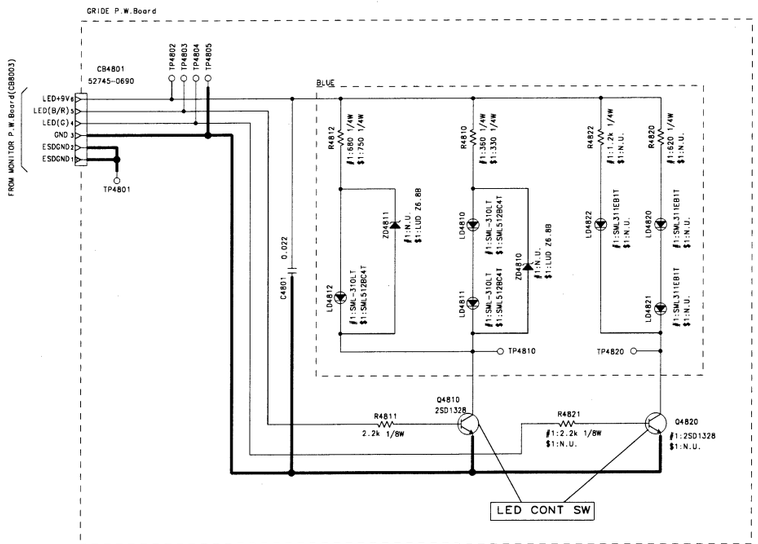
DF P.W.Board
NOTE:N.U.is Not Used Parts.

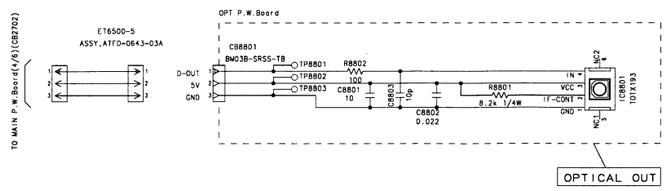
TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(11/17)



NOTE:#1:For IVA-D100R Model Only,
$1:For IVA-D100RB Model Only,
Others:Common.

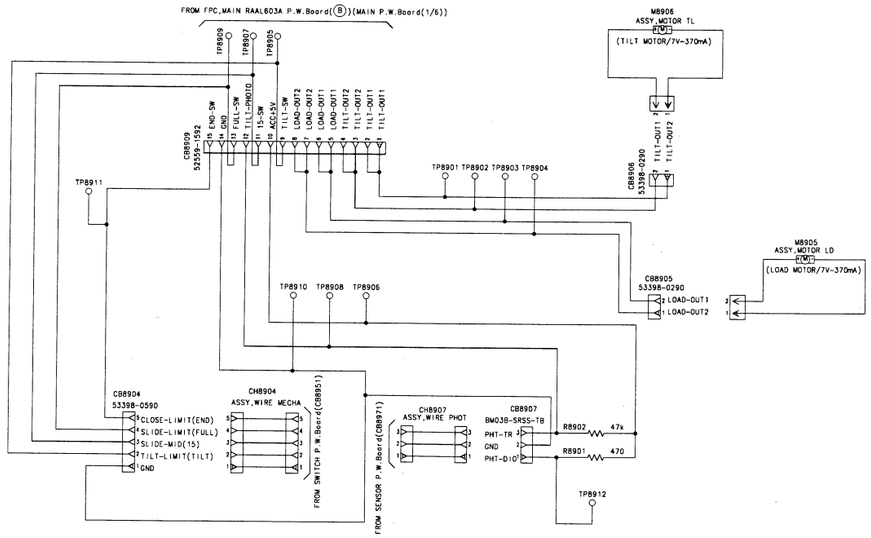




NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(12/17)

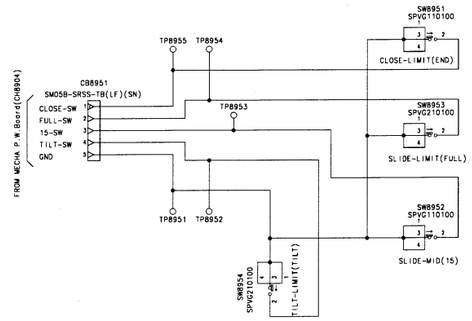


MECHA P.W.Board

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(13/17)

IVA-D100R/IVA-D100RB

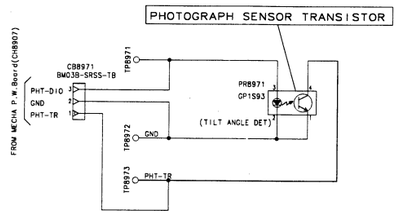


SWITCH P.W.Board

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(14/17)

IVA-D100R/IVA-D100RB



SENSOR P.W.Board

TO P. W. BOARD TO PARTS LIST TO CONTENTS

Schematic Diagram(15/17)

IVA-D100R/IVA-D100RB

1 CHIP LSI for DVD PLAYER
(FE/SODC/BE with SYSTEM CONTROLLER)

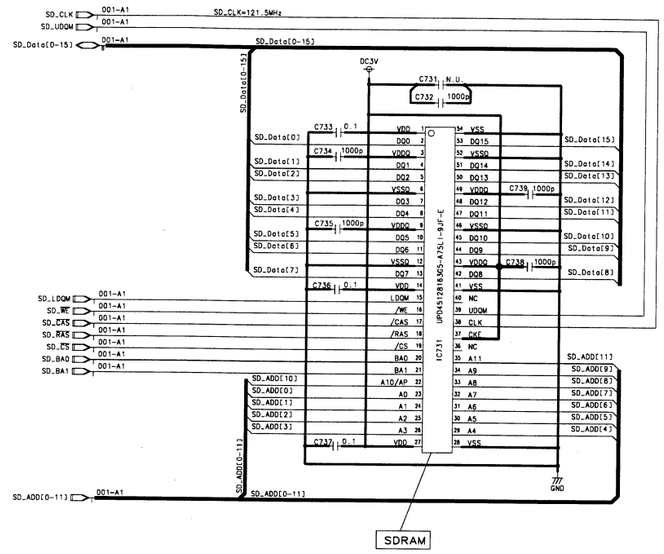
IC601
MN35206UB

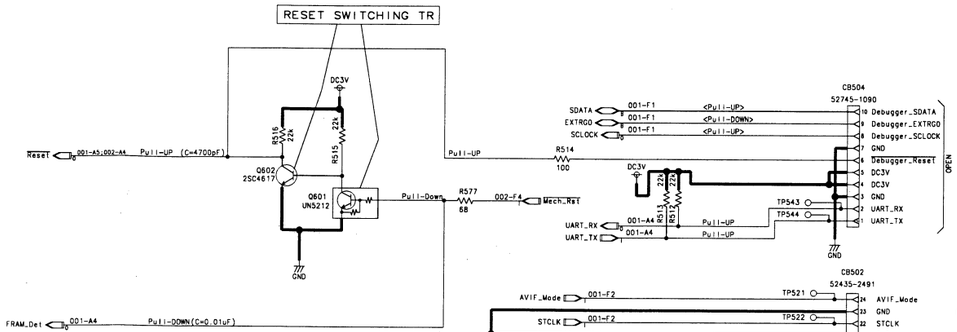
DV-MAIN P.W.Board(1/3)
NOTE:N.U.is Not Used Parts.

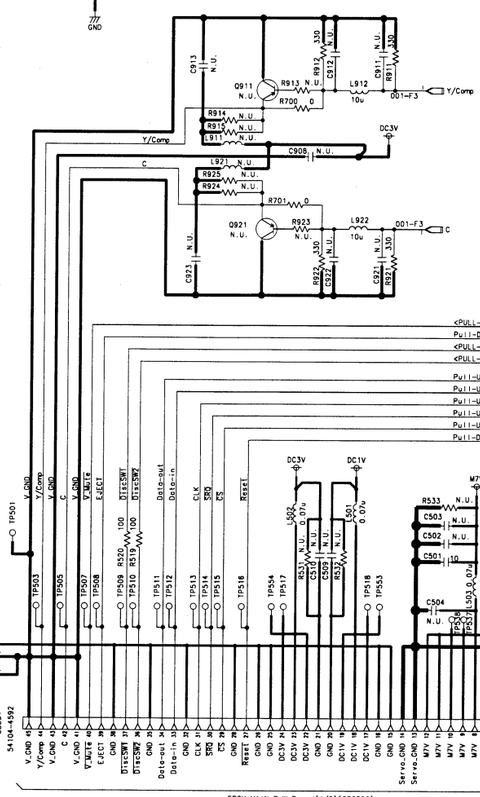
TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

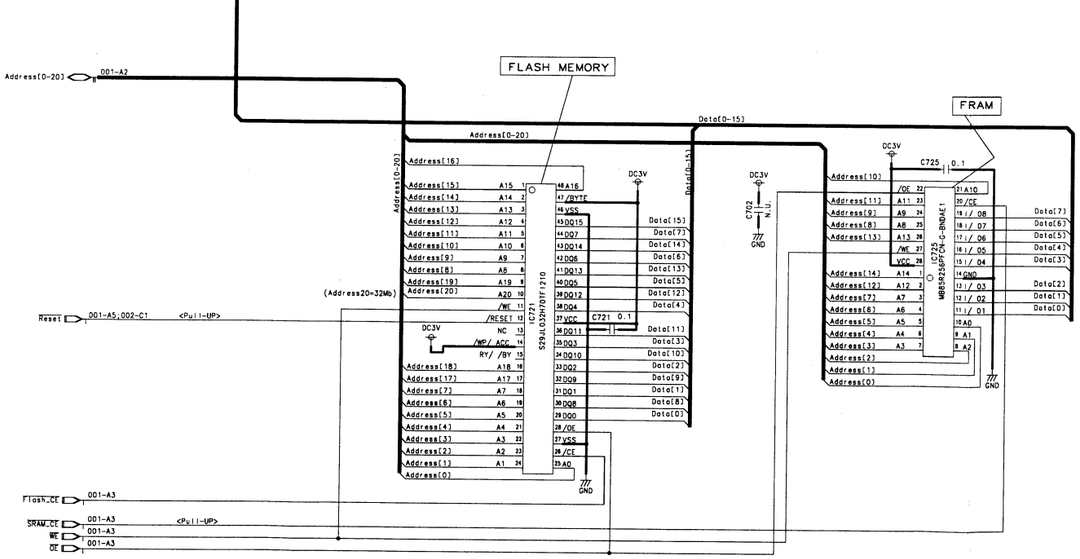
Schematic Diagram(16/17)

IVA-D100R/IVA-D100RB





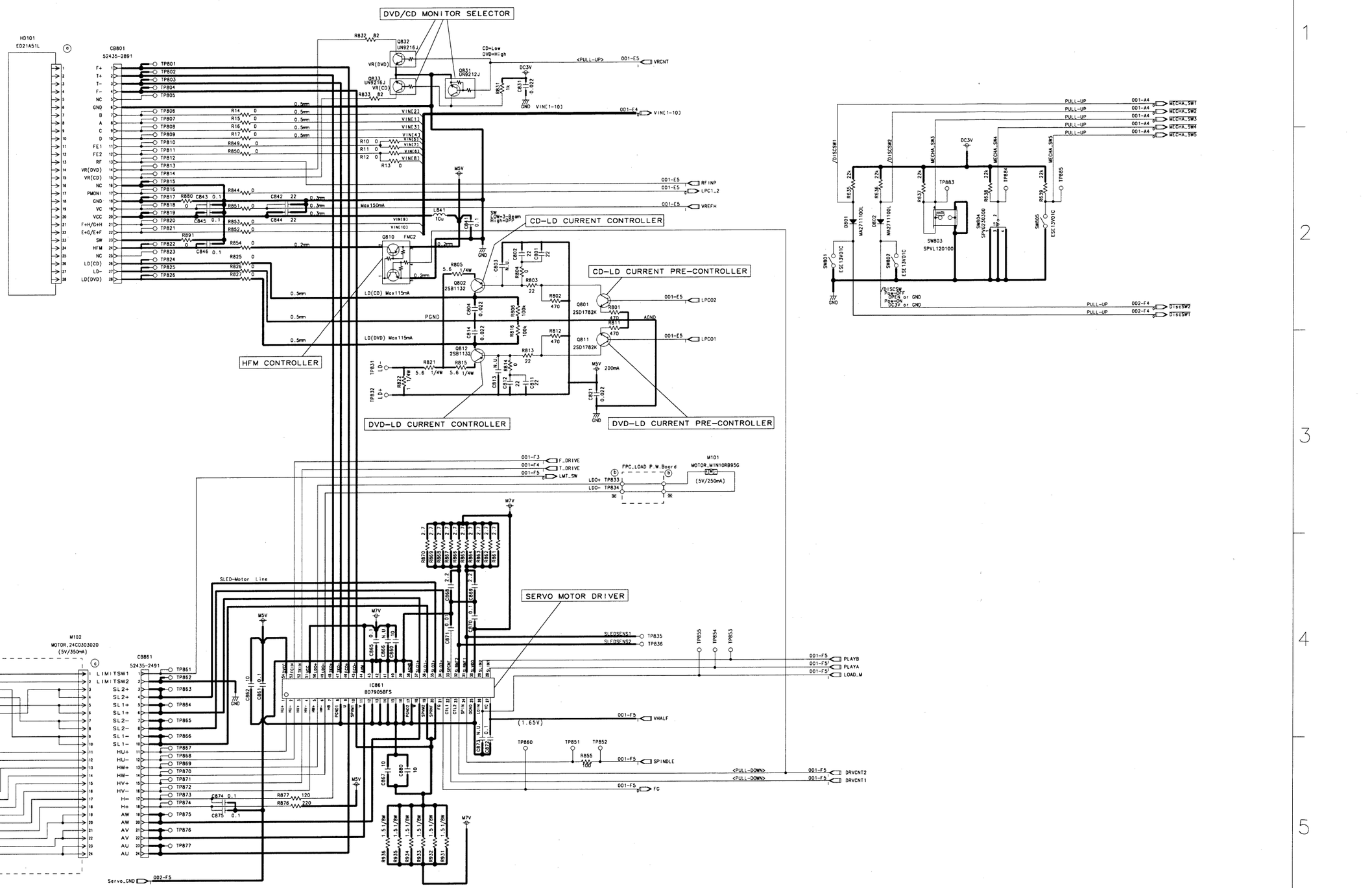




DV-MAIN P.W.Board(2/3)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(17/17)



TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Terminal Voltage of IC/TR (IVA-D100R Model Only)

(MAIN P.W.Board)

IC1000		
Pin No.	Voltage[V]	Note
1	0/10	Except Tuner mode / Tuner mode
2	0	
3	0/13.95	

IC1001		
Pin No.	Voltage[V]	Note
1	6.86	Tuner mode, FM standard signal receiving state
2	6.86	
3	0.21	
4	0	
5	4	
6	4	
7	4	
8	8	

IC1002	
Pin No.	Voltage[V]
1	3.65
2	3.65
3	0
4	8
5	8

IC1003			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0.46	11	0
2	0.45	12	0
3	0	13	2.4
4	CLK	14	4.85
5	CLK	15	0
6	0	16	2.43
7	4.85	17	2.44
8	4.83	18	2.4
9	4.82	19	2.42
10	4.82	20	2.44

IC1004		
Pin No.	Voltage[V]	Note
1	3.22/0	Tuner mode / Except Tuner mode
2	9.1/9.1	
3	0/0	
4	8.08/0	
5	0/0	

IC1101	
Pin No.	Voltage[V]
1	3.19
2	0
3	0
4	3.18
5	0
6	3.18
7	0
8	3.18
9	0
10	3.18
11	0
12	0
13	3.28
14	3.19

IC1102		
Pin No.	Voltage[V]	Note
1	0/0/4.9/4.9	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.9/4.9	
3	0/0/0/4.9	
4	0/0/0/0	
5	0/0/0/0	
6	0/0/0/0	
7	0/0/0/0	
8	4.9/4.9/4.9/4.9	
9	3.2/3.2/3.2/3.2	
10	3.2/3.2/3.2/3.2	
11	0/4.9/4.9/0	
12	0/4.9/4.9/0	
13	0/4.9/4.9/0	
14	4.9/4.9/4.9/4.9	

TO SCHEMATIC TO CONTENTS

IC1201		
Pin No.	Voltage[V]	Note
1	0	
2	0	
3	0	
4	0	
5	0/8.3	Shuttle open / From Shuttle flat to close
6	0	
7	0	
8	0	
9	0/8.3	Shuttle open / From Shuttle close to horizontal movement
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	
16	8.92	
17	8.92	
18	4.57/0	Usually / From Shuttle flat to close
19	0	
20	4.56/0	Usually / From Shuttle close to horizontal movement
21	9	
22	0	
23	0	
24	0	
25	0	

IC1202		
Pin No.	Voltage[V]	Note
1	0	
2	0	
3	0	
4	0	
5	0/7.46	Shuttle open / From Shuttle open to flat
6	0	
7	0	
8	0	
9	0/5.6	Shuttle open / From Shuttle flat to tilt
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	
16	8.92	
17	8.92	
18	4.6/0	Usually / From Shuttle open to flat
19	0	
20	4.6/0	Usually / From Shuttle flat to tilt
21	6.44/8.62	Shuttle open / close
22	0	
23	0	
24	0	
25	0	

TO SCHEMATIC TO CONTENTS

IC1203	
Pin No.	Voltage[V]
1	3.26
2	3.26
3	5
4	3.26
5	3.26
6	5
7	0
8	5
9	3.26
10	3.26
11	5
12	3.26
13	3.26
14	5

IC2001					
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	16	4.48	31	4.46
2	4.47	17	4.43	32	4.46
3	4.46	18	4.43	33	4.46
4	4.47	19	4.48	34	4.48
5	0.47	20	4.48	35	4.48
6	4.46	21	4.48	36	4.48
7	4.43	22	4.48	37	4.48
8	4.43	23	4.48	38	4.48
9	4.43	24	4.48	39	4.48
10	4.43	25	4.48	40	8.99
11	4.43	26	4.48	41	8.99
12	4.43	27	0.55	42	SIG
13	4.48	28	4.48	43	SIG
14	4.48	29	4.48	44	0
15	4.48	30	4.46		

IC2002	
Pin No.	Voltage[V]
1	4.56
2	4.56
3	4.56
4	0
5	4.56
6	4.56
7	4.56
8	8.97

IC2100	
Pin No.	Voltage[V]
1	4.58
2	4.58
3	4.57
4	0
5	4.57
6	4.59
7	4.57
8	9

IC2101	
Pin No.	Voltage[V]
1	4.57
2	4.57
3	4.57
4	0
5	4.57
6	4.57
7	4.57
8	9

IC2600	
Pin No.	Voltage[V]
1	4.57
2	4.56
3	4.56
4	0
5	4.56
6	4.57
7	4.56
8	9.07

IC2650		
Pin No.	Voltage[V]	Note
1	4.58	
2	4.58	
3	4.58	
4	0	Navi no connect
5	4.58	
6	4.58	
7	4.58	
8	9	

IC2701		
Pin No.	Voltage[V]	Note
1	1.62	
2	3.27	
3	0	OPT ON
4	2.32	
5	5	

IC2702			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	CLK	9	0
2	SIG	10	2.5
3	CLK	11	3.3
4	0	12	0
5	3.3	13	0
6	5	14	0
7	SIG	15	3.25
8	SIG	16	CLK

IC2703	
Pin No.	Voltage[V]
1	SIG
2	SIG
3	SIG
4	0
5	SIG
6	SIG
7	SIG
8	9

TO SCHEMATIC TO CONTENTS

IC3100							
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	10	13.9	19	0	28	0
2	13.9	11	13.9	20	1.76	29	0
3	0	12	0	21	2.17	30	0
4	0	13	8.23	22	4.34	31	0
5	0	14	13.1	23	3.29	32	0
6	0	15	3.29	24	2.44	33	0
7	0	16	3.29	25	3.22	34	0
8	0	17	3.29	26	SIG	35	13.9
9	13.9	18	3.25	27	SIG	36	13.9

IC3101	
Pin No.	Voltage[V]
1	3.27/0
2	3.27/2.22
3	0
4	0
5	1.6/0

IC3230	
Pin No.	Voltage[V]
1	2.87
2	13.66
3	0
4	9.08
5	1.26

IC3310	
Pin No.	Voltage[V]
1	2.9
2	9.07
3	0
4	7.08
5	0.78

IC3320	
Pin No.	Voltage[V]
1	9
2	0
3	1.29
4	5
5	9

IC3330	
Pin No.	Voltage[V]
1	3.21
2	0
3	1.27
4	5
5	8.3

IC3340	
Pin No.	Voltage[V]
1	8.99
2	0
3	1.27
4	5.05
5	8.98

IC3350	
Pin No.	Voltage[V]
1	2.84
2	7
3	0
4	5.02
5	1.25

IC3360	
Pin No.	Voltage[V]
1	2.93
2	3.94
3	0
4	3.32
5	1.28

IC3370	
Pin No.	Voltage[V]
1	2.93
2	3.55
3	0
4	2.88
5	1.3

IC3380	
Pin No.	Voltage[V]
1	2.87
2	2.87
3	1.23
4	2.87
5	0

IC3401	
Pin No.	Voltage[V]
1	2.87
2	13.93
3	0
4	8.98
5	1.25

TO SCHEMATIC TO CONTENTS

IC4000									
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	4.02	11	4.59	21	5.06	31	3.64	41	4.6
2	SIG	12	4.55	22	4.57	32	4.59	42	4.46
3	SIG	13	0	23	4	33	3.75	43	4.33
4	SIG	14	5.06	24	4.57	34	9.09	44	0
5	SIG	15	4.04	25	0	35	0	45	4.47
6	0	16	4.59	26	SIG	36	5.04	46	4.56
7	5	17	4.04	27	SIG	37	4.58	47	4.01
8	4	18	4.59	28	4.54	38	4.55	48	4.56
9	4.59	19	4.55	29	4.44	39	4.6		
10	4.04	20	0	30	4.59	40	4.41		

IC4001	
Pin No.	Voltage[V]
1	4.57
2	4.57
3	4.57
4	0
5	4.57
6	4.57
7	4.57
8	8.97

IC4002 (REAR SEL DVD PLAYER)		
Pin No.	Voltage[V]	Note
1	2	
2	0	
3	2	
4	3.3/0	V MUTE OFF/ON
5	SIG	
6	7	
7	SIG	
8	0	

IC5000 -1					
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Note
1	3.25		25	0/SIG	Usually / Communication (at Power ON,OFF)
2	0		26	0/SIG	
3	3.24		27	3.23/SIG	
4	3.21		28	3.23/SIG	
5	3.25		29	3.23/SIG	
6	3.13		30	3.25	
7	3.2		31	3.25	
8	0.53		32	0	
9	3.25		33	0	
10	2.54		34	3.25	
11	0		35	0	
12	CLK		36	3.23	
13	CLK		37	3.23	
14	3.25		38	0	
15	0		39	3.25	
16	2.53		40	3.25	
17	0		41	3.25	
18	3.21		42	3.25	
19	3.19		43	SIG	
20	0		44	SIG	
21	4.85		45	0	
22	3.23/SIG	Usually / Communication	46	0	
23	3.23/SIG		47	0	
24	0		48	0	

TO SCHEMATIC TO CONTENTS

IC5000 -2					
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Note
49	0		97	3.23	
50	0		98	3.23	
51	5/SIG	Source DVD / Tuner mode seek	99	3.23	
52	5/SIG		100	0	
53	0		101	3.23	
54	3.25		102	3.23	
55	5		103	0	
56	0		104	3.23	
57	0		105	3.23	
58	0		106	0/3.23	Usually / VSEL ON
59	0		107	3.23/0	LED RED / GREEN
60	0		108	0/SIG	
61	SIG		109	0	
62	SIG		110	0	
63	SIG		111	3.23	
64	3.23		112	0	
65	SIG		113	0	
66	SIG		114	0	
67	0		115	0	
68	3.23/SIG		116	0	
69	3.23/SIG		117	0	
70	3.23/SIG	Usually / Communication	118	0	
71	3.23/SIG		119	0	
72	0/SIG		120	0	
73	0/SIG		121	0	
74	SIG		122	0	
75	0/SIG	Buzzer OFF/ON	123	3.23	
76	3.23/SIG	Usually / Communication	124	3.23/0	Usually / A MUTE ON
77	3.23/SIG		125	3.23/0	OPT ON/OFF
78	3.23		126	0	
79	0/3.23	Usually / Compulsory EJECT	127	3.13/0.42	Change with ENC 1step
80	3.23/0	Disc in / No Disc	128	3.13/0.42	
81	3.23/0		129	A/D	A/D input port for AUTO DIMMER
82	3.23		130	3.13	
83	3.23		131	3.13	
84	3.23		132	3.13	
85	3.23		133	0	
86	3.23		134	0	
87	3.23		135	A/D	DVD-mech Temp detect port
88	3.23		136	0	
89	0		137	0	
90	3.23		138	3.23	
91	3.23		139	3.23/0	Usually / REAR VMUTE
92	3.23		140	3.13/0	Usually / Camera signal input
93	3.23		141	0	
94	3.23		142	3.23	F-PARK OPEN
95	2.96		143	3.23	H-PARK ON
96	3.21		144	3.23	

TO SCHEMATIC TO CONTENTS

IC5001	
Pin No.	Voltage[V]
1	4.66/SIG
2	0
3	0
4	0/SIG
5	5

IC5003	
Pin No.	Voltage[V]
1	13.98
2	0
3	0
4	5

IC5004		
Pin No.	Voltage[V]	Note
1	0	
2	0	
3	0	
4	0	
5	3.23/SIG	Usually / Communication
6	3.23/SIG	
7	0	
8	3.28	

IC6000		
Pin No.	Voltage[V]	Note
1	3.3/0	
2	3.3/0	
3	4.9/0	
4	3.3/SIG	Usually / Power ON
5	3.3/SIG	Usually / Power ON,OFF
6	4.9/SIG	
7	0	
8	4.9/SIG	Usually / Power ON,OFF
9	3.3/SIG	
10	3.3/SIG	
11	0/SIG	
12	0/SIG	
13	0/SIG	
14	4.9	

IC6001	
Pin No.	Voltage[V]
1	3.26/SIG
2	3.26/SIG
3	0
4	5
5	5

IC6002			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	4.9/SIG	9	4.9/SIG
2	0/SIG	10	0
3	0/SIG	11	4.9
4	4.9/SIG	12	1.98/SIG
5	CLK	13	2.92/SIG
6	CLK	14	0
7	4.9/SIG	15	4.9/0.4
8	0	16	4.9

Q1000		
Pin No.	Voltage[V]	Note
E	13.7/13.7	DVD/TUNER
B	13.7/13	
C	0/13.65	

Q1001		
Pin No.	Voltage[V]	Note
E	0/0	DVD/TUNER
B	0/3.22	
C	13.65/0	

Q1007	
Pin No.	Voltage[V]
1	0
2	4.85
3	4.97
4	3.18
5	0

Q1008	
Pin No.	Voltage[V]
E	0
B	0
C	8

Q1101	
Pin No.	Voltage[V]
E	0
B	0
C	SIG

Q1102		
Pin No.	Voltage[V]	Note
1	4.88/0/0/4.8	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/4.8/4.8/0	
3	4.9/4.8/4.8/4.8	
4	0/3.2/3.2/0	
5	0/0/0/0	

TO SCHEMATIC TO CONTENTS

Q1103		
Pin No.	Voltage[V]	Note
1	0/0/4.2/0	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.8/0	
3	0/0/0/0	
4	0/0/0/0	
5	0/0/0/0	

Q1201	
Pin No.	Voltage[V]
E	0
B	3.27
C	0

Q1202	
Pin No.	Voltage[V]
E	6.46
B	6.83
C	8.98

Q1104		
Pin No.	Voltage[V]	Note
1	4.88/4.8/0/0	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.8/4.8	
3	4.9/4.8/4.8/4.8	
4	0/0/3.2/3.2	
5	0/0/0/0	

Q2001	
Pin No.	Voltage[V]
E	0
B	0
C	8.97

Q1105		
Pin No.	Voltage[V]	Note
1	0/0/4.2/4.2	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.8/4.8	
3	0/0/0/0	
4	0/0/0/0	
5	0/0/0/0	

Q2100		
Pin No.	Voltage[V]	Note
1	SIG/0	Mute OFF / Mute ON
2	0/0	
3	SIG/0	
4	SIG/6.45	
5	0/0	
6	SIG/6.45	

Q2101		
Pin No.	Voltage[V]	Note
1	SIG/0	Mute OFF / Mute ON
2	0/0	
3	SIG/0	
4	SIG/6.45	
5	0/0	
6	SIG/6.45	

Q2102		
Pin No.	Voltage[V]	Note
1	SIG/0	Mute OFF / Mute ON
2	0/0	
3	SIG/0	
4	SIG/6.45	
5	0/0	
6	SIG/6.45	

Q2680		
Pin No.	Voltage[V]	Note
1	13.9/0	Usually / A-MUTE ON
2	0/13.9	
3	13.9/13.9	
4	0/5.4	
5	0/0	

Q2683	
Pin No.	Voltage[V]
E	0/0
B	3.2/0
C	0/5.4

Q2701	
Pin No.	Voltage[V]
B	SIG
C	0
E	SIG

Q2702	
Pin No.	Voltage[V]
B	SIG
C	0
E	SIG

TO SCHEMATIC TO CONTENTS

Q3001		
Pin No.	Voltage[V]	Note
B	1.9/3.17	HAND PARK ON/OFF
C	3.17/0	
E	3.15/3.17	

Q3003	
Pin No.	Voltage[V]
B	3.17
C	0
E	3.17

Q3004		
Pin No.	Voltage[V]	Note
E	0	No REVERSE signal
B	0	
C	3.17	

Q3005		
Pin No.	Voltage[V]	Note
E	0/0	Buzzer OFF/ON
B	0/3.2	
C	13.6/0	

Q3016	
Pin No.	Voltage[V]
1	0
2	3.19
3	3.28
4	3.22
5	0

Q3101	
Pin No.	Voltage[V]
1	0
2	3.25
3	3.28
4	3.25
5	0

Q3102		
Pin No.	Voltage[V]	Note
1	0/1.9	DVD PLAY / RESET
2	0/1.9	
3	0/0	
4	4.34/0	
5	3.27/0	
6	0/0	

Q3207		
Pin No.	Voltage[V]	Note
E	0/0	DVD mode / TUNER mode
B	0/0.7	
C	14/0	

Q3208	
Pin No.	Voltage[V]
E	13.8
B	13.8
C	0

Q3209		
Pin No.	Voltage[V]	Note
B	13.9/13.2	DVD mode / TUNER mode
C	0/13.9	
E	13.9/13.9	

Q3210		
Pin No.	Voltage[V]	Note
E	0/0	DVD mode / TUNER mode
B	0/0.72	
C	14/0	

Q3390	
Pin No.	Voltage[V]
E	0
B	0.78
C	0

Q3391	
Pin No.	Voltage[V]
B	6.27
C	6.99
E	7

TO SCHEMATIC TO CONTENTS

Q4002	
Pin No.	Voltage[V]
E	SIG
B	SIG
C	7

Q4003	
Pin No.	Voltage[V]
E	SIG
B	SIG
C	7

Q4004	
Pin No.	Voltage[V]
E	3.08
B	3.73
C	7

Q4005		
Pin No.	Voltage[V]	Note
B	1.36	REAR SEL OFF
C	0	
E	2	

Q5001	
Pin No.	Voltage[V]
E	0/0
B	0/SIG
C	3.27/SIG

Q5002	
Pin No.	Voltage[V]
E	4.97
B	4.97
C	0

Q5003	
Pin No.	Voltage[V]
B	8.19
C	8.86
E	8.95

Q5004	
Pin No.	Voltage[V]
E	0
B	3.27
C	0

Q5005	
Pin No.	Voltage[V]
1	0
2	5
3	5
4	3.3
5	0

Q5006	
Pin No.	Voltage[V]
1	0
2	3.26
3	3.27
4	3.26
5	0

Q5007	
Pin No.	Voltage[V]
1	0
2	3.26
3	3.28
4	9.06
5	0

Q5008	
Pin No.	Voltage[V]
1	0
2	3.27
3	3.27
4	3.27
5	0

Q6000		
Pin No.	Voltage[V]	Note
E	0/3.22	Usually / RESET
B	3.22/0	
C	3.22/3.22	

Q6001		
Pin No.	Voltage[V]	Note
1	5/0	Usually / RESET
2	2/4.84	
3	5/5	
4	0/3.22	
5	0/0	

TO SCHEMATIC TO CONTENTS

(MONITOR P.W.Board)

IC8001					
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Note
1	3.23		51	SIG	
2	0		52	SIG	
3	0		53	0	
4	0		54	3.23	
5	3.23		55	0	
6	3.22		56	1.44	Force Reactor vibration
7	3.22		57	3.23	Dimmer OFF
8	0		58	0	
9	3.22		59	0	
10	2.55		60	0	
11	0		61	0	
12	CLK		62	0	
13	CLK		63	0	
14	3.24		64	0	
15	CLK		65	3.23	
16	CLK		66	3.23	
17	0		67	3.23	
18	3.22		68	0	
19	3.22		69	0	
20	SIG		70	3.23	
21	SIG	Communication line	71	0	
22	3.23		72	0	
23	0		73	0	
24	3.22		74	0	
25	SIG		75	0	
26	SIG	Communication line	76	0	
27	SIG		77	3.23	
28	0		78	0	
29	3.23		79	0	
30	5/0.13	NTSC/PAL	80	0	
31	3.23/0		81	0	
32	0		82	3.23	
33	0		83	3.23	
34	3.23		84	3.23	
35	3.23		85	3.23	
36	3.13		86	0	
37	3.13		87	0	
38	0		88	0	
39	3.23		89	0.68	25°C
40	3.23		90	0	
41	3.23		91	3.23	
42	3.23		92	0	
43	0		93	0	
44	0		94	0	
45	0		95	3.14	
46	0		96	0.17	
47	SIG		97	0	
48	0.3		98	0	
49	3.23		99	0/3.3	LED GREEN / RED
50	SIG		100	SIG/0	

TO SCHEMATIC TO CONTENTS

IC8301						
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	SIG		16	SIG	33	SIG
2	SIG		17	SIG	34	SIG
3	SIG/0	Navi connect,Source Navi / Navi no connect,Source DVD	18	SIG	35	SIG
			19	SIG	36	5
4	2		20	SIG	37	1.67
5	SIG		21	3.22	38	0
6	3.22/0	Navi connect,Source Navi / Navi no connect,Source DVD	22	2.32	39	SIG
			23	SIG	40	13.1
7	0		24	1.92	41	SIG
8	1.32		25	0	42	SIG
9	5		26	CLK	43	0
10	5		27	CLK	44	2
11	0		28	SIG	45	5
12	3.2/0		29	CLK	46	3.3
13	SIG/2.58	Navi connect,Source Navi / Navi no connect,Source DVD	30	CLK	47	0
14	SIG/2.58		31	0	48	3.3
15	SIG/2.58		32	0		

IC8302	
Pin No.	Voltage[V]
1	SIG
2	0
3	0
4	0
5	5
6	SIG
7	0
8	5

IC8303	
Pin No.	Voltage[V]
1	3.24
2	3.24
3	0
4	5.02
5	5.02

IC8502		
Pin No.	Voltage[V]	Note
1	0	
2	0/5	Usually / MUTE
3	0	
4	0/5	Usually / MUTE
5	5	

IC8401							
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	21	0	41	0	61	SIG
2	CLK	22	0	42	0	62	SIG
3	CLK	23	0	43	0	63	SIG
4	0	24	0	44	0	64	SIG
5	SIG	25	0	45	0	65	SIG
6	SIG	26	0	46	3.24	66	SIG
7	SIG	27	0	47	0	67	SIG
8	3.23	28	0	48	0	68	SIG
9	4.95	29	0	49	0	69	0
10	0	30	0	50	0	70	3.24
11	4.63	31	0	51	0	71	SIG
12	0	32	3.24	52	0	72	0
13	0	33	3.24	53	0	73	0
14	0	34	0	54	0	74	0
15	3.24	35	0	55	0	75	SIG
16	0	36	0.43	56	3.24	76	SIG
17	3.24	37	1.58	57	3.24	77	0
18	CLK	38	1.11	58	3.24	78	0
19	0	39	1.12	59	0	79	0
20	3.23	40	0	60	0	80	3.24

TO SCHEMATIC TO CONTENTS

IC8503

Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	SIG	16	SIG	31	0	46	0	61	0
2	SIG	17	0	32	5	47	SIG	62	0
3	SIG	18	0	33	5	48	0	63	5
4	SIG	19	0	34	0	49	5	64	0
5	SIG	20	5	35	0	50	5	65	5
6	SIG	21	5	36	SIG	51	5	66	0
7	0	22	5	37	0	52	5	67	0
8	5	23	0	38	SIG	53	5	68	0
9	0	24	5	39	5	54	0	69	0
10	0	25	0	40	0	55	0	70	SIG
11	5	26	5	41	0	56	0	71	SIG
12	SIG	27	0	42	0	57	SIG	72	0
13	5	28	SIG	43	CLK	58	SIG		
14	0.2	29	0	44	CLK	59	0		
15	5	30	SIG	45	5	60	5		

IC8504

Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	3.26	8	5
2	3.26	9	3.26
3	5	10	3.26
4	3.26	11	5
5	3.26	12	3.26
6	5	13	3.26
7	0	14	5

IC8505

Pin No.	Voltage[V]
1	2.73
2	0
3	2.73
4	2.69
5	5

IC8601

Pin No.	Voltage[V]
1	3.21
2	8.87
3	0
4	5.03
5	0.75

IC8701

Pin No.	Voltage[V]
1	3.22
2	0
3	1.28
4	3.32
5	6.69

IC8702

Pin No.	Voltage[V]
1	3.21
2	8.87
3	0
4	5.04
5	0.77

IC8703

Pin No.	Voltage[V]
1	7.01
2	0
3	1.27
4	5.01
5	7.01

IC8704

Pin No.	Voltage[V]
1	0
2	1.2
3	0.24
4	0
5	0
6	0
7	0
8	5.04

IC8705

Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	8	4.9	15	SIG
2	0.94	9	1.2	16	0
3	4.96	10	1.36	17	1
4	3.38	11	SIG	18	SIG
5	4.9	12	SIG	19	SIG
6	0	13	2.48	20	SIG
7	3.32	14	0		

IC8706

Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	3.21	4	7.01
2	8.87	5	0.75
3	0		

IC8707

Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	SIG	4	SIG
2	4.9	5	4.95
3	0		

TO SCHEMATIC TO CONTENTS

Q8001	
Pin No.	Voltage[V]
1	0
2	3.17
3	3.23
4	3.18
5	0

Q8002	
Pin No.	Voltage[V]
1	0
2	3.17
3	3.23
4	3.18
5	0

Q8101		
Pin No.	Voltage[V]	Note
B	3.18/PS	Touch-panel no touch/ Touch-panel touch
C	0/PS	
E	3.18/3.07	

Q8102		
Pin No.	Voltage[V]	Note
B	2.5/PS	Touch-panel no touch/ Touch-panel touch
C	3.17/PS	
E	3.18/3.07	

Q8103		
Pin No.	Voltage[V]	Note
B	3.18/PS	Touch-panel no touch/ Touch-panel touch
C	0/PS	
E	3.18/3.07	

Q8104		
Pin No.	Voltage[V]	Note
E	0/0	Touch-panel no touch/ Touch-panel touch
B	0/PS	
C	0/PS	

Q8105		
Pin No.	Voltage[V]	Note
E	0/0	Touch-panel no touch/ Touch-panel touch
B	0/PS	
C	3.18/PS	

Q8201		
Pin No.	Voltage[V]	Note
E	0/0	Force Reactor no vibration / vibration
B	0/PS	
C	5/PS	

Q8202		
Pin No.	Voltage[V]	Note
B	5/PS	Force Reactor no vibration / vibration
C	0/PS	
E	5/5	

Q8203		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8204		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8205		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8206		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8207		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

Q8208		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

Q8209		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

Q8210		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

TO SCHEMATIC TO CONTENTS

Q8211		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8212		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8213		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8214		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8215		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/3.2	
C	6.96/0	

Q8216		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8217		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8218		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8219		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8303	
Pin No.	Voltage[V]
E	SIG
B	SIG
C	5

Q8304	
Pin No.	Voltage[V]
E	6.98
B	6.98
C	0

Q8501		
Pin No.	Voltage[V]	Note
E	0/0	V-mute ON/OFF
B	0/3.2	
C	5/0	

Q8502	
Pin No.	Voltage[V]
B	CLK
C	CLK
E	CLK

Q8601	
Pin No.	Voltage[V]
1	0
2	5
3	5
4	3.2
5	0

Q8602	
Pin No.	Voltage[V]
E	-16
B	-15.34
C	-16

Q8603	
Pin No.	Voltage[V]
1	0
2	13
3	13
4	3.24
5	0

Q8701	
Pin No.	Voltage[V]
E	0
B	0.57
C	0

Q8702		
Pin No.	Voltage[V]	Note
B	0/3.24	BL ON/OFF
C	4.95/0	
E	0/0	

TO SCHEMATIC TO CONTENTS

Q8703			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	5	4.46
2	2.44	6	4.46
3	8.81	7	4.46
4	7.21	8	4.46

Q8704			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	5	4.48
2	2.45	6	4.47
3	8.81	7	4.47
4	7.2	8	4.47

(DF P.W.Board)

IC4520	
Pin No.	Voltage[V]
1	4.96
2	0
3	0
4	4.71

IC4530	
Pin No.	Voltage[V]
1	0
2	0
3	3.3
4	2.72

Q4540	
Pin No.	Voltage[V]
E	0
B	0.75
C	0.11

Q4550	
Pin No.	Voltage[V]
E	0
B	0.76
C	0.12

Q4560	
Pin No.	Voltage[V]
E	0
B	0.76
C	0.11

Q4580	
Pin No.	Voltage[V]
E	0
B	0.79
C	0.14

(GRIDE P.W.Board)

Q4810	
Pin No.	Voltage[V]
E	0
B	0.77
C	0.1

Q4820	
Pin No.	Voltage[V]
E	0
B	0.75
C	0.1

(OPT P.W.Board)

IC8801	
Pin No.	Voltage[V]
1	0
2	2.21
3	5.04
4	1.83
5	0
6	0

[Measuring Conditions]

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD play : TDV-540A (Title2, Chapter1, 75% SMPTE Color Bar)
   : Shuttle Open
   : 25°C
   : Screen display prohibition release
   * Follow it when there is a special note.

TO SCHEMATIC TO CONTENTS

(DVD Deck Mechanism)

IC601									
1	PS	53	3.25	105	0	157	0	209	3.28
2	PS	54	0	106	1.71	158	0	210	PS
3	0	55	3.25	107	3.26	159	3.28	211	PS
4	PS	56	3.25	108	2.32	160	0	212	PS
5	PS	57	3.25	109	1.78	161	3.26	213	0
6	3.28	58	3.25	110	1.78	162	0	214	N.U.
7	PS	59	3.26	111	1.78	163	1.57	215	N.U.
8	PS	60	3.26	112	1.63	164	0	216	3.28
9	0	61	3.25	113	1.63	165	1.36	217	PS
10	PS	62	3.26	114	0	166	N.U.	218	0
11	PS	63	0	115	0	167	3.28	219	1.13
12	3.28	64	0	116	1.6	168	0	220	PS
13	PS	65	3.26	117	0	169	1.59	221	PS
14	PS	66	3.26	118	3.28	170	1.58	222	0
15	PS	67	3.25	119	1.86	171	0	223	PS
16	0	68	3.26	120	1.56	172	1.16	224	PS
17	PS	69	3.25	121	1.37	173	0	225	3.29
18	PS	70	0	122	0	174	0	226	PS
19	3.26	71	3.26	123	0	175	0	227	PS
20	0	72	3.26	124	0	176	0	228	PS
21	PS	73	3.26	125	0	177	3.28	229	0
22	3.28	74	0	126	0	178	3.24	230	PS
23	PS	75	N.U.	127	2.16	179	0	231	3.28
24	PS	76	1.58	128	1.6	180	3.28	232	0
25	PS	77	1.59	129	1.89	181	0	233	PS
26	1.13	78	1.59	130	1.89	182	3.28	234	0
27	-	79	0	131	1.89	183	0	235	0
28	3.28	80	0	132	1.89	184	0	236	1.14
29	0	81	3.28	133	1.89	185	0	237	PS
30	PS	82	0	134	1.89	186	0	238	PS
31	PS	83	1.62	135	1.89	187	0	239	3.26
32	PS	84	3.28	136	1.89	188	0	240	2.82
33	PS	85	3.22	137	1.89	189	0	241	1.58
34	3.28	86	3.28	138	1.89	190	3.28	242	0
35	0	87	0	139	N.U.	191	0	243	1.56
36	PS	88	0	140	1.89	192	PS	244	3.26
37	PS	89	1.13	141	3.28	193	PS	245	3.26
38	3.3	90	0	142	1.16	194	PS	246	0
39	PS	91	0	143	1.86	195	PS	247	3.28
40	PS	92	0	144	2.13	196	3.28	248	3.28
41	PS	93	0	145	0	197	PS	249	0
42	PS	94	0	146	1.28	198	PS	250	3.28
43	PS	95	0	147	1.58	199	PS	251	PS
44	1.13	96	0	148	1.58	200	PS	252	0
45	PS	97	0	149	0	201	0	253	PS
46	PS	98	3.26	150	3.28	202	3.28	254	PS
47	PS	99	0.92	151	N.U.	203	PS	255	3.28
48	3.28	100	0	152	N.U.	204	PS	256	PS
49	0	101	2.32	153	0.92	205	0		
50	PS	102	2.29	154	0.82	206	PS		
51	PS	103	1.79	155	3.26	207	PS		
52	3.28	104	0	156	0	208	PS		

PS : Pulse waveform

TO SCHEMATIC TO CONTENTS

IC721									
1	PS	11	3.26	21	PS	31	PS	41	PS
2	PS	12	3.26	22	PS	32	PS	42	PS
3	PS	13	N.U.	23	PS	33	PS	43	PS
4	PS	14	0	24	PS	34	PS	44	PS
5	PS	15	N.U.	25	PS	35	PS	45	PS
6	PS	16	PS	26	3.28	36	PS	46	0
7	PS	17	PS	27	0	37	3.28	47	3.28
8	PS	18	PS	28	3.28	38	PS	48	PS
9	PS	19	PS	29	PS	39	PS		
10	PS	20	PS	30	PS	40	PS		

IC725									
1	PS	7	PS	13	PS	19	PS	25	PS
2	PS	8	PS	14	0	20	3.26	26	PS
3	PS	9	PS	15	PS	21	PS	27	3.27
4	PS	10	PS	16	PS	22	1.88	28	3.24
5	PS	11	PS	17	PS	23	PS		
6	PS	12	PS	18	PS	24	PS		

IC731									
1	3.28	12	0	23	PS	34	PS	45	PS
2	PS	13	PS	24	PS	35	PS	46	0
3	3.28	14	0	25	PS	36	N.U.	47	PS
4	PS	15	2.84	26	PS	37	3.27	48	PS
5	PS	16	3.22	27	3.26	38	1.76	49	3.28
6	0	17	3.22	28	0	39	3.28	50	PS
7	PS	18	3.22	29	3.26	40	N.U.	51	PS
8	PS	19	3.22	30	PS	41	0	52	0
9	3.28	20	2.84	31	PS	42	PS	53	PS
10	PS	21	PS	32	PS	43	3.28	54	0
11	PS	22	PS	33	PS	44	PS		

IC861									
1	5.12	12	0	23	0	34	0	45	0
2	5.12	13	0	24	1.56	35	0	46	0
3	5.12	14	0	25	0	36	0	47	0
4	5.12	15	0	26	1.56	37	0	48	0
5	5.12	16	0	27	1.6	38	0	49	1.0
6	5.12	17	0	28	1.6	39	0	50	1.04
7	5.14	18	0	29	1.6	40	0	51	7.14
8	0	19	7.14	30	7.12	41	0	52	1.58
9	0	20	7.12	31	7.12	42	0	53	1.52
10	7.2	21	3.32	32	7.12	43	0	54	5.1
11	0	22	0	33	0	44	7.1		

PS : Pulse waveform

TO SCHEMATIC TO CONTENTS

	E	B	C
Q601	3.28	0	0
Q602	0	3.28	0
Q801	0	0	5.0
Q802	5.0	5.0	0
Q811	0	0	5.0
Q812	5.0	5.0	0
Q831	0	0	2.7
Q832	0	0	0
Q833	0	2.7	0

Q810	
1	5.0
2	0
3	5.0
4	0
5	0

[Measuring Conditions]

1. Power Supply Voltage : DC12.0V - JIG
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD mechanism unit only
   : State of power supply ON

TO SCHEMATIC TO CONTENTS

Terminal Voltage of IC/TR (IVA-D100RB Model Only)

(MAIN P.W.Board)

IC1000		
Pin No.	Voltage[V]	Note
1	0/10	Except Tuner mode / Tuner mode
2	0	
3	0/13.95	

IC1001		
Pin No.	Voltage[V]	Note
1	6.86	Tuner mode, FM standard signal receiving state
2	6.86	
3	0.21	
4	0	
5	4	
6	4	
7	4	
8	8	

IC1002	
Pin No.	Voltage[V]
1	3.65
2	3.65
3	0
4	8
5	8

IC1003			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0.46	11	0
2	0.45	12	0
3	0	13	2.4
4	CLK	14	4.85
5	CLK	15	0
6	0	16	2.43
7	4.85	17	2.44
8	4.83	18	2.4
9	4.82	19	2.42
10	4.82	20	2.44

IC1004		
Pin No.	Voltage[V]	Note
1	3.22/0	Tuner mode / Except Tuner mode
2	9.1/9.1	
3	0/0	
4	8.08/0	
5	0/0	

IC1101	
Pin No.	Voltage[V]
1	3.19
2	0
3	0
4	3.18
5	0
6	3.18
7	0
8	3.18
9	0
10	3.18
11	0
12	0
13	3.28
14	3.19

IC1102		
Pin No.	Voltage[V]	Note
1	0/0/4.9/4.9	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.9/4.9	
3	0/0/0/4.9	
4	0/0/0/0	
5	0/0/0/0	
6	0/0/0/0	
7	0/0/0/0	
8	4.9/4.9/4.9/4.9	
9	3.2/3.2/3.2/3.2	
10	3.2/3.2/3.2/3.2	
11	0/4.9/4.9/0	
12	0/4.9/4.9/0	
13	0/4.9/4.9/0	
14	4.9/4.9/4.9/4.9	

TO SCHEMATIC TO CONTENTS

IC1201		
Pin No.	Voltage[V]	Note
1	0	
2	0	
3	0	
4	0	
5	0/8.3	Shuttle open / From Shuttle flat to close
6	0	
7	0	
8	0	
9	0/8.3	Shuttle open / From Shuttle close to horizontal movement
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	
16	8.92	
17	8.92	
18	4.57/0	Usually / From Shuttle flat to close
19	0	
20	4.56/0	Usually / From Shuttle close to horizontal movement
21	9	
22	0	
23	0	
24	0	
25	0	

IC1202		
Pin No.	Voltage[V]	Note
1	0	
2	0	
3	0	
4	0	
5	0/7.46	Shuttle open / From Shuttle open to flat
6	0	
7	0	
8	0	
9	0/5.6	Shuttle open / From Shuttle flat to tilt
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	
16	8.92	
17	8.92	
18	4.6/0	Usually / From Shuttle open to flat
19	0	
20	4.6/0	Usually / From Shuttle flat to tilt
21	6.44/8.62	Shuttle open / close
22	0	
23	0	
24	0	
25	0	

TO SCHEMATIC TO CONTENTS

IC1203	
Pin No.	Voltage[V]
1	3.26
2	3.26
3	5
4	3.26
5	3.26
6	5
7	0
8	5
9	3.26
10	3.26
11	5
12	3.26
13	3.26
14	5

IC2001					
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	16	4.48	31	4.46
2	4.47	17	4.43	32	4.46
3	4.46	18	4.43	33	4.46
4	4.47	19	4.48	34	4.48
5	0.47	20	4.48	35	4.48
6	4.46	21	4.48	36	4.48
7	4.43	22	4.48	37	4.48
8	4.43	23	4.48	38	4.48
9	4.43	24	4.48	39	4.48
10	4.43	25	4.48	40	8.99
11	4.43	26	4.48	41	8.99
12	4.43	27	0.55	42	SIG
13	4.48	28	4.48	43	SIG
14	4.48	29	4.48	44	0
15	4.48	30	4.46		

IC2002	
Pin No.	Voltage[V]
1	4.56
2	4.56
3	4.56
4	0
5	4.56
6	4.56
7	4.56
8	8.97

IC2100	
Pin No.	Voltage[V]
1	4.58
2	4.58
3	4.57
4	0
5	4.57
6	4.59
7	4.57
8	9

IC2101	
Pin No.	Voltage[V]
1	4.57
2	4.57
3	4.57
4	0
5	4.57
6	4.57
7	4.57
8	9

IC2600	
Pin No.	Voltage[V]
1	4.57
2	4.56
3	4.56
4	0
5	4.56
6	4.57
7	4.56
8	9.07

IC2650		
Pin No.	Voltage[V]	Note
1	4.58	
2	4.58	
3	4.58	
4	0	Navi no connect
5	4.58	
6	4.58	
7	4.58	
8	9	

IC2701		
Pin No.	Voltage[V]	Note
1	1.62	
2	3.27	
3	0	OPT ON
4	2.32	
5	5	

IC2702			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	CLK	9	0
2	SIG	10	2.5
3	CLK	11	3.3
4	0	12	0
5	3.3	13	0
6	5	14	0
7	SIG	15	3.25
8	SIG	16	CLK

IC2703	
Pin No.	Voltage[V]
1	SIG
2	SIG
3	SIG
4	0
5	SIG
6	SIG
7	SIG
8	9

TO SCHEMATIC TO CONTENTS

IC3100							
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	10	13.9	19	0	28	0
2	13.9	11	13.9	20	1.76	29	0
3	0	12	0	21	2.17	30	0
4	0	13	8.23	22	4.34	31	0
5	0	14	13.1	23	3.29	32	0
6	0	15	3.29	24	2.44	33	0
7	0	16	3.29	25	3.22	34	0
8	0	17	3.29	26	SIG	35	13.9
9	13.9	18	3.25	27	SIG	36	13.9

IC3101	
Pin No.	Voltage[V]
1	3.27/0
2	3.27/2.22
3	0
4	0
5	1.6/0

IC3230	
Pin No.	Voltage[V]
1	2.87
2	13.66
3	0
4	9.08
5	1.26

IC3310	
Pin No.	Voltage[V]
1	2.9
2	9.07
3	0
4	7.08
5	0.78

IC3320	
Pin No.	Voltage[V]
1	9
2	0
3	1.29
4	5
5	9

IC3330	
Pin No.	Voltage[V]
1	3.21
2	0
3	1.27
4	5
5	8.3

IC3340	
Pin No.	Voltage[V]
1	8.99
2	0
3	1.27
4	5.05
5	8.98

IC3350	
Pin No.	Voltage[V]
1	2.84
2	7
3	0
4	5.02
5	1.25

IC3360	
Pin No.	Voltage[V]
1	2.93
2	3.94
3	0
4	3.32
5	1.28

IC3370	
Pin No.	Voltage[V]
1	2.93
2	3.55
3	0
4	2.88
5	1.3

IC3380	
Pin No.	Voltage[V]
1	2.87
2	2.87
3	1.23
4	2.87
5	0

IC3401	
Pin No.	Voltage[V]
1	2.87
2	13.93
3	0
4	8.98
5	1.25

TO SCHEMATIC TO CONTENTS

IC4000									
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	4.02	11	4.59	21	5.06	31	3.64	41	4.6
2	SIG	12	4.55	22	4.57	32	4.59	42	4.46
3	SIG	13	0	23	4	33	3.75	43	4.33
4	SIG	14	5.06	24	4.57	34	9.09	44	0
5	SIG	15	4.04	25	0	35	0	45	4.47
6	0	16	4.59	26	SIG	36	5.04	46	4.56
7	5	17	4.04	27	SIG	37	4.58	47	4.01
8	4	18	4.59	28	4.54	38	4.55	48	4.56
9	4.59	19	4.55	29	4.44	39	4.6		
10	4.04	20	0	30	4.59	40	4.41		

IC4001	
Pin No.	Voltage[V]
1	4.57
2	4.57
3	4.57
4	0
5	4.57
6	4.57
7	4.57
8	8.97

IC4002 (REAR SEL DVD PLAYER)		
Pin No.	Voltage[V]	Note
1	2	
2	0	
3	2	
4	3.3/0	V MUTE OFF/ON
5	SIG	
6	7	
7	SIG	
8	0	

IC5000 -1					
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Note
1	3.25		25	0/SIG	
2	0		26	0/SIG	Usually / Communication (at Power ON,OFF)
3	3.24		27	3.23/SIG	
4	3.21		28	3.23/SIG	
5	3.25		29	3.23/SIG	
6	3.13		30	3.25	
7	3.2		31	3.25	
8	0.53		32	0	
9	3.25		33	0	
10	2.54		34	3.25	
11	0		35	0	
12	CLK		36	3.23	
13	CLK		37	3.23	
14	3.25		38	0	
15	0		39	3.25	
16	2.53		40	3.25	
17	0		41	3.25	
18	3.21		42	3.25	
19	3.19		43	SIG	
20	0		44	SIG	
21	4.85		45	0	
22	3.23/SIG	Usually / Communication	46	0	
23	3.23/SIG		47	0	
24	0		48	0	

TO SCHEMATIC TO CONTENTS

IC5000 -2					
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Note
49	0		97	3.23	
50	0		98	3.23	
51	5/SIG	Source DVD / Tuner mode seek	99	3.23	
52	5/SIG		100	0	
53	0		101	3.23	
54	3.25		102	3.23	
55	5		103	0	
56	0		104	3.23	
57	0		105	3.23	
58	0		106	0/3.23	Usually / VSEL ON
59	0		107	0	
60	0		108	3.23	
61	SIG		109	0	
62	SIG		110	0	
63	SIG		111	3.23	
64	3.23		112	0	
65	SIG		113	0	
66	SIG		114	0	
67	0		115	0	
68	3.23/SIG		116	0	
69	3.23/SIG		117	0	
70	3.23/SIG	Usually / Communication	118	0	
71	3.23/SIG		119	0	
72	0/SIG		120	0	
73	0/SIG		121	0	
74	SIG		122	0	
75	0/SIG	Buzzer OFF/ON	123	3.23	
76	3.23/SIG	Usually / Communication	124	3.23/0	Usually / A MUTE ON
77	3.23/SIG		125	3.23/0	OPT ON/OFF
78	3.23		126	0	
79	0/3.23	Usually / Compulsory EJECT	127	3.13/0.42	Change with ENC 1step
80	3.23/0	Disc in / No Disc	128	3.13/0.42	
81	3.23/0		129	A/D	A/D input port for AUTO DIMMER
82	3.23		130	3.13	
83	3.23		131	3.13	
84	3.23		132	3.13	
85	3.23		133	0	
86	3.23		134	0	
87	3.23		135	A/D	DVD-mech Temp detect port
88	3.23		136	0	
89	0		137	0	
90	3.23		138	3.23	
91	3.23		139	3.23/0	Usually / REAR VMUTE
92	3.23		140	3.13/0	Usually / Camera signal input
93	3.23		141	0	
94	3.23		142	3.23	F-PARK OPEN
95	2.96		143	3.23	H-PARK ON
96	3.21		144	3.23	

TO SCHEMATIC TO CONTENTS

IC5001	
Pin No.	Voltage[V]
1	4.66/SIG
2	0
3	0
4	0/SIG
5	5

IC5003	
Pin No.	Voltage[V]
1	13.98
2	0
3	0
4	5

IC5004		
Pin No.	Voltage[V]	Note
1	0	
2	0	
3	0	
4	0	
5	3.23/SIG	Usually / Communication
6	3.23/SIG	
7	0	
8	3.28	

IC6000		
Pin No.	Voltage[V]	Note
1	3.3/0	
2	3.3/0	
3	4.9/0	
4	3.3/SIG	Usually / Power ON
5	3.3/SIG	Usually / Power ON,OFF
6	4.9/SIG	
7	0	
8	4.9/SIG	Usually / Power ON,OFF
9	3.3/SIG	
10	3.3/SIG	
11	0/SIG	
12	0/SIG	
13	0/SIG	
14	4.9	

IC6001	
Pin No.	Voltage[V]
1	3.26/SIG
2	3.26/SIG
3	0
4	5
5	5

IC6002			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	4.9/SIG	9	4.9/SIG
2	0/SIG	10	0
3	0/SIG	11	4.9
4	4.9/SIG	12	1.98/SIG
5	CLK	13	2.92/SIG
6	CLK	14	0
7	4.9/SIG	15	4.9/0.4
8	0	16	4.9

Q1000		
Pin No.	Voltage[V]	Note
E	13.7/13.7	DVD/TUNER
B	13.7/13	
C	0/13.65	

Q1001		
Pin No.	Voltage[V]	Note
E	0/0	DVD/TUNER
B	0/3.22	
C	13.65/0	

Q1007	
Pin No.	Voltage[V]
1	0
2	4.85
3	4.97
4	3.18
5	0

Q1008	
Pin No.	Voltage[V]
E	0
B	0
C	8

Q1101	
Pin No.	Voltage[V]
E	0
B	0
C	SIG

Q1102		
Pin No.	Voltage[V]	Note
1	4.88/0/0/4.8	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/4.8/4.8/0	
3	4.9/4.8/4.8/4.8	
4	0/3.2/3.2/0	
5	0/0/0/0	

TO SCHEMATIC TO CONTENTS

Q1103		
Pin No.	Voltage[V]	Note
1	0/0/4.2/0	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.8/0	
3	0/0/0/0	
4	0/0/0/0	
5	0/0/0/0	

Q1201	
Pin No.	Voltage[V]
E	0
B	3.27
C	0

Q1202	
Pin No.	Voltage[V]
E	6.46
B	6.83
C	8.98

Q1104		
Pin No.	Voltage[V]	Note
1	4.88/4.8/0/0	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.8/4.8	
3	4.9/4.8/4.8/4.8	
4	0/0/3.2/3.2	
5	0/0/0/0	

Q2001	
Pin No.	Voltage[V]
E	0
B	0
C	8.97

Q1105		
Pin No.	Voltage[V]	Note
1	0/0/4.2/4.2	Audio DVD,Visual DVD / Audio Aux,Visual Aux / Audio Aux,Visual Navi / Audio DVD,Visual Navi
2	0/0/4.8/4.8	
3	0/0/0/0	
4	0/0/0/0	
5	0/0/0/0	

Q2100		
Pin No.	Voltage[V]	Note
1	SIG/0	Mute OFF / Mute ON
2	0/0	
3	SIG/0	
4	SIG/6.45	
5	0/0	
6	SIG/6.45	

Q2101		
Pin No.	Voltage[V]	Note
1	SIG/0	Mute OFF / Mute ON
2	0/0	
3	SIG/0	
4	SIG/6.45	
5	0/0	
6	SIG/6.45	

Q2102		
Pin No.	Voltage[V]	Note
1	SIG/0	Mute OFF / Mute ON
2	0/0	
3	SIG/0	
4	SIG/6.45	
5	0/0	
6	SIG/6.45	

Q2680		
Pin No.	Voltage[V]	Note
1	13.9/0	Usually / A-MUTE ON
2	0/13.9	
3	13.9/13.9	
4	0/5.4	
5	0/0	

Q2683	
Pin No.	Voltage[V]
E	0/0
B	3.2/0
C	0/5.4

Q2701	
Pin No.	Voltage[V]
B	SIG
C	0
E	SIG

Q2702	
Pin No.	Voltage[V]
B	SIG
C	0
E	SIG

TO SCHEMATIC TO CONTENTS

Q3001		
Pin No.	Voltage[V]	Note
B	1.9/3.17	HAND PARK ON/OFF
C	3.17/0	
E	3.15/3.17	

Q3003	
Pin No.	Voltage[V]
B	3.17
C	0
E	3.17

Q3004		
Pin No.	Voltage[V]	Note
E	0	No REVERSE signal
B	0	
C	3.17	

Q3005		
Pin No.	Voltage[V]	Note
E	0/0	Buzzer OFF/ON
B	0/3.2	
C	13.6/0	

Q3016	
Pin No.	Voltage[V]
1	0
2	3.19
3	3.28
4	3.22
5	0

Q3101	
Pin No.	Voltage[V]
1	0
2	3.25
3	3.28
4	3.25
5	0

Q3102		
Pin No.	Voltage[V]	Note
1	0/1.9	DVD PLAY / RESET
2	0/1.9	
3	0/0	
4	4.34/0	
5	3.27/0	
6	0/0	

Q3207		
Pin No.	Voltage[V]	Note
E	0/0	DVD mode / TUNER mode
B	0/0.7	
C	14/0	

Q3208	
Pin No.	Voltage[V]
E	13.8
B	13.8
C	0

Q3209		
Pin No.	Voltage[V]	Note
B	13.9/13.2	DVD mode / TUNER mode
C	0/13.9	
E	13.9/13.9	

Q3210		
Pin No.	Voltage[V]	Note
E	0/0	DVD mode / TUNER mode
B	0/0.72	
C	14/0	

Q3390	
Pin No.	Voltage[V]
E	0
B	0.78
C	0

Q3391	
Pin No.	Voltage[V]
B	6.27
C	6.99
E	7

TO SCHEMATIC TO CONTENTS

Q4002	
Pin No.	Voltage[V]
E	SIG
B	SIG
C	7

Q4003	
Pin No.	Voltage[V]
E	SIG
B	SIG
C	7

Q4004	
Pin No.	Voltage[V]
E	3.08
B	3.73
C	7

Q4005		
Pin No.	Voltage[V]	Note
B	1.36	REAR SEL OFF
C	0	
E	2	

Q5001	
Pin No.	Voltage[V]
E	0/0
B	0/SIG
C	3.27/SIG

Q5002	
Pin No.	Voltage[V]
E	4.97
B	4.97
C	0

Q5003	
Pin No.	Voltage[V]
B	8.19
C	8.86
E	8.95

Q5004	
Pin No.	Voltage[V]
E	0
B	3.27
C	0

Q5005	
Pin No.	Voltage[V]
1	0
2	5
3	5
4	3.3
5	0

Q5006	
Pin No.	Voltage[V]
1	0
2	3.26
3	3.27
4	3.26
5	0

Q5007	
Pin No.	Voltage[V]
1	0
2	3.26
3	3.28
4	9.06
5	0

Q5008	
Pin No.	Voltage[V]
1	0
2	3.27
3	3.27
4	3.27
5	0

Q6000		
Pin No.	Voltage[V]	Note
E	0/3.22	Usually / RESET
B	3.22/0	
C	3.22/3.22	

Q6001		
Pin No.	Voltage[V]	Note
1	5/0	Usually / RESET
2	2/4.84	
3	5/5	
4	0/3.22	
5	0/0	

TO SCHEMATIC TO CONTENTS

(MONITOR P.W.Board)

IC8001					
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Note
1	3.23		51	SIG	
2	0		52	SIG	
3	0		53	0	
4	0		54	3.23	
5	3.23		55	0	
6	3.22		56	1.44	Force Reactor vibration
7	3.22		57	3.23	Dimmer OFF
8	0		58	0	
9	3.22		59	0	
10	2.55		60	0	
11	0		61	0	
12	CLK		62	0	
13	CLK		63	0	
14	3.24		64	0	
15	CLK		65	3.23	
16	CLK		66	3.23	
17	0		67	3.23	
18	3.22		68	0	
19	3.22		69	0	
20	SIG		70	3.23	
21	SIG	Communication line	71	0	
22	3.23		72	0	
23	0		73	0	
24	3.22		74	0	
25	SIG		75	0	
26	SIG	Communication line	76	0	
27	SIG		77	3.23	
28	0		78	0	
29	3.23		79	0	
30	5/0.13	NTSC/PAL	80	0	
31	3.23/0		81	0	
32	0		82	3.23	
33	0		83	3.23	
34	3.23		84	3.23	
35	3.23		85	3.23	
36	3.13		86	0	
37	3.13		87	0	
38	0		88	0	
39	3.23		89	0.68	25°C
40	3.23		90	0	
41	3.23		91	3.23	
42	3.23		92	0	
43	0		93	0	
44	0		94	0	
45	0		95	3.14	
46	0		96	0.17	
47	SIG		97	0	
48	0.3		98	0	
49	3.23		99	3.2	
50	SIG		100	0	

TO SCHEMATIC TO CONTENTS

IC8301							
Pin No.	Voltage[V]	Note	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	SIG		16	SIG	33	SIG
2	SIG		17	SIG	34	SIG
3	SIG/0	Navi connect,Source Navi / Navi no connect,Source DVD	18	SIG	35	SIG
			19	SIG	36	5
4	2		20	SIG	37	1.67
5	SIG		21	3.22	38	0
6	3.22/0	Navi connect,Source Navi / Navi no connect,Source DVD	22	2.32	39	SIG
			23	SIG	40	13.1
7	0		24	1.92	41	SIG
8	1.32		25	0	42	SIG
9	5		26	CLK	43	0
10	5		27	CLK	44	2
11	0		28	SIG	45	5
12	3.2/0		29	CLK	46	3.3
13	SIG/2.58	Navi connect,Source Navi / Navi no connect,Source DVD	30	CLK	47	0
14	SIG/2.58		31	0	48	3.3
15	SIG/2.58		32	0		

IC8302	
Pin No.	Voltage[V]
1	SIG
2	0
3	0
4	0
5	5
6	SIG
7	0
8	5

IC8303	
Pin No.	Voltage[V]
1	3.24
2	3.24
3	0
4	5.02
5	5.02

IC8502		
Pin No.	Voltage[V]	Note
1	0	
2	0/5	Usually / MUTE
3	0	
4	0/5	Usually / MUTE
5	5	

IC8401							
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	21	0	41	0	61	SIG
2	CLK	22	0	42	0	62	SIG
3	CLK	23	0	43	0	63	SIG
4	0	24	0	44	0	64	SIG
5	SIG	25	0	45	0	65	SIG
6	SIG	26	0	46	3.24	66	SIG
7	SIG	27	0	47	0	67	SIG
8	3.23	28	0	48	0	68	SIG
9	4.95	29	0	49	0	69	0
10	0	30	0	50	0	70	3.24
11	4.63	31	0	51	0	71	SIG
12	0	32	3.24	52	0	72	0
13	0	33	3.24	53	0	73	0
14	0	34	0	54	0	74	0
15	3.24	35	0	55	0	75	SIG
16	0	36	0.43	56	3.24	76	SIG
17	3.24	37	1.58	57	3.24	77	0
18	CLK	38	1.11	58	3.24	78	0
19	0	39	1.12	59	0	79	0
20	3.23	40	0	60	0	80	3.24

TO SCHEMATIC TO CONTENTS

IC8503

Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	SIG	16	SIG	31	0	46	0	61	0
2	SIG	17	0	32	5	47	SIG	62	0
3	SIG	18	0	33	5	48	0	63	5
4	SIG	19	0	34	0	49	5	64	0
5	SIG	20	5	35	0	50	5	65	5
6	SIG	21	5	36	SIG	51	5	66	0
7	0	22	5	37	0	52	5	67	0
8	5	23	0	38	SIG	53	5	68	0
9	0	24	5	39	5	54	0	69	0
10	0	25	0	40	0	55	0	70	SIG
11	5	26	5	41	0	56	0	71	SIG
12	SIG	27	0	42	0	57	SIG	72	0
13	5	28	SIG	43	CLK	58	SIG		
14	0.2	29	0	44	CLK	59	0		
15	5	30	SIG	45	5	60	5		

IC8504

Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	3.26	8	5
2	3.26	9	3.26
3	5	10	3.26
4	3.26	11	5
5	3.26	12	3.26
6	5	13	3.26
7	0	14	5

IC8505

Pin No.	Voltage[V]
1	2.73
2	0
3	2.73
4	2.69
5	5

IC8601

Pin No.	Voltage[V]
1	3.21
2	8.87
3	0
4	5.03
5	0.75

IC8701

Pin No.	Voltage[V]
1	3.22
2	0
3	1.28
4	3.32
5	6.69

IC8702

Pin No.	Voltage[V]
1	3.21
2	8.87
3	0
4	5.04
5	0.77

IC8703

Pin No.	Voltage[V]
1	7.01
2	0
3	1.27
4	5.01
5	7.01

IC8704

Pin No.	Voltage[V]
1	0
2	1.2
3	0.24
4	0
5	0
6	0
7	0
8	5.04

IC8705

Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	8	4.9	15	SIG
2	0.94	9	1.2	16	0
3	4.96	10	1.36	17	1
4	3.38	11	SIG	18	SIG
5	4.9	12	SIG	19	SIG
6	0	13	2.48	20	SIG
7	3.32	14	0		

IC8706

Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	3.21	4	7.01
2	8.87	5	0.75
3	0		

IC8707

Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	SIG	4	SIG
2	4.9	5	4.95
3	0		

TO SCHEMATIC TO CONTENTS

Q8001	
Pin No.	Voltage[V]
1	0
2	3.17
3	3.23
4	3.18
5	0

Q8002	
Pin No.	Voltage[V]
1	0
2	3.17
3	3.23
4	3.18
5	0

Q8101		
Pin No.	Voltage[V]	Note
B	3.18/PS	Touch-panel no touch/ Touch-panel touch
C	0/PS	
E	3.18/3.07	

Q8102		
Pin No.	Voltage[V]	Note
B	2.5/PS	Touch-panel no touch/ Touch-panel touch
C	3.17/PS	
E	3.18/3.07	

Q8103		
Pin No.	Voltage[V]	Note
B	3.18/PS	Touch-panel no touch/ Touch-panel touch
C	0/PS	
E	3.18/3.07	

Q8104		
Pin No.	Voltage[V]	Note
E	0/0	Touch-panel no touch/ Touch-panel touch
B	0/PS	
C	0/PS	

Q8105		
Pin No.	Voltage[V]	Note
E	0/0	Touch-panel no touch/ Touch-panel touch
B	0/PS	
C	3.18/PS	

Q8201		
Pin No.	Voltage[V]	Note
E	0/0	Force Reactor no vibration / vibration
B	0/PS	
C	5/PS	

Q8202		
Pin No.	Voltage[V]	Note
B	5/PS	Force Reactor no vibration / vibration
C	0/PS	
E	5/5	

Q8203		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8204		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8205		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8206		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	6.96/SIG	

Q8207		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

Q8208		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

Q8209		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

Q8210		
Pin No.	Voltage[V]	Note
E	6.96/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/SIG	
C	0/SIG	

TO SCHEMATIC TO CONTENTS

Q8211		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8212		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8213		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8214		
Pin No.	Voltage[V]	Note
E	0/SIG	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/SIG	
C	6.96/6.96	

Q8215		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	0/3.2	
C	6.96/0	

Q8216		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8217		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8218		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8219		
Pin No.	Voltage[V]	Note
E	6.96/0	Source DVD (Navi no connect) / Source Navi (Navi connect)
B	6.96/0	
C	6.96/SIG	

Q8303	
Pin No.	Voltage[V]
E	SIG
B	SIG
C	5

Q8304	
Pin No.	Voltage[V]
E	6.98
B	6.98
C	0

Q8501		
Pin No.	Voltage[V]	Note
E	0/0	V-mute ON/OFF
B	0/3.2	
C	5/0	

Q8502	
Pin No.	Voltage[V]
B	CLK
C	CLK
E	CLK

Q8601	
Pin No.	Voltage[V]
1	0
2	5
3	5
4	3.2
5	0

Q8602	
Pin No.	Voltage[V]
E	-16
B	-15.34
C	-16

Q8603	
Pin No.	Voltage[V]
1	0
2	13
3	13
4	3.24
5	0

Q8701	
Pin No.	Voltage[V]
E	0
B	0.57
C	0

Q8702		
Pin No.	Voltage[V]	Note
B	0/3.24	BL ON/OFF
C	4.95/0	
E	0/0	

TO SCHEMATIC TO CONTENTS

Q8703			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	5	4.46
2	2.44	6	4.46
3	8.81	7	4.46
4	7.21	8	4.46

Q8704			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	5	4.48
2	2.45	6	4.47
3	8.81	7	4.47
4	7.2	8	4.47

(DF P.W.Board)

IC4520	
Pin No.	Voltage[V]
1	4.94
2	0
3	0
4	4.39

IC4530	
Pin No.	Voltage[V]
1	0
2	0
3	3.31
4	2.73

Q4540	
Pin No.	Voltage[V]
E	0
B	0.74
C	0

Q4550	
Pin No.	Voltage[V]
E	0
B	0.74
C	0

Q4580	
Pin No.	Voltage[V]
E	0
B	0.75
C	0

(GRIDE P.W.Board)

Q4810	
Pin No.	Voltage[V]
E	0
B	0.75
C	0.08

(OPT P.W.Board)

IC8801	
Pin No.	Voltage[V]
1	0
2	2.21
3	5.04
4	1.83
5	0
6	0

[Measuring Conditions]

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD play : TDV-540A (Title2, Chapter1, 75% SMPTE Color Bar)
   : Shuttle Open
   : 25°C
   : Screen display prohibition release
   * Follow it when there is a special note.

TO SCHEMATIC TO CONTENTS

(DVD Deck Mechanism)

IC601									
1	PS	53	3.25	105	0	157	0	209	3.28
2	PS	54	0	106	1.71	158	0	210	PS
3	0	55	3.25	107	3.26	159	3.28	211	PS
4	PS	56	3.25	108	2.32	160	0	212	PS
5	PS	57	3.25	109	1.78	161	3.26	213	0
6	3.28	58	3.25	110	1.78	162	0	214	N.U.
7	PS	59	3.26	111	1.78	163	1.57	215	N.U.
8	PS	60	3.26	112	1.63	164	0	216	3.28
9	0	61	3.25	113	1.63	165	1.36	217	PS
10	PS	62	3.26	114	0	166	N.U.	218	0
11	PS	63	0	115	0	167	3.28	219	1.13
12	3.28	64	0	116	1.6	168	0	220	PS
13	PS	65	3.26	117	0	169	1.59	221	PS
14	PS	66	3.26	118	3.28	170	1.58	222	0
15	PS	67	3.25	119	1.86	171	0	223	PS
16	0	68	3.26	120	1.56	172	1.16	224	PS
17	PS	69	3.25	121	1.37	173	0	225	3.29
18	PS	70	0	122	0	174	0	226	PS
19	3.26	71	3.26	123	0	175	0	227	PS
20	0	72	3.26	124	0	176	0	228	PS
21	PS	73	3.26	125	0	177	3.28	229	0
22	3.28	74	0	126	0	178	3.24	230	PS
23	PS	75	N.U.	127	2.16	179	0	231	3.28
24	PS	76	1.58	128	1.6	180	3.28	232	0
25	PS	77	1.59	129	1.89	181	0	233	PS
26	1.13	78	1.59	130	1.89	182	3.28	234	0
27	-	79	0	131	1.89	183	0	235	0
28	3.28	80	0	132	1.89	184	0	236	1.14
29	0	81	3.28	133	1.89	185	0	237	PS
30	PS	82	0	134	1.89	186	0	238	PS
31	PS	83	1.62	135	1.89	187	0	239	3.26
32	PS	84	3.28	136	1.89	188	0	240	2.82
33	PS	85	3.22	137	1.89	189	0	241	1.58
34	3.28	86	3.28	138	1.89	190	3.28	242	0
35	0	87	0	139	N.U.	191	0	243	1.56
36	PS	88	0	140	1.89	192	PS	244	3.26
37	PS	89	1.13	141	3.28	193	PS	245	3.26
38	3.3	90	0	142	1.16	194	PS	246	0
39	PS	91	0	143	1.86	195	PS	247	3.28
40	PS	92	0	144	2.13	196	3.28	248	3.28
41	PS	93	0	145	0	197	PS	249	0
42	PS	94	0	146	1.28	198	PS	250	3.28
43	PS	95	0	147	1.58	199	PS	251	PS
44	1.13	96	0	148	1.58	200	PS	252	0
45	PS	97	0	149	0	201	0	253	PS
46	PS	98	3.26	150	3.28	202	3.28	254	PS
47	PS	99	0.92	151	N.U.	203	PS	255	3.28
48	3.28	100	0	152	N.U.	204	PS	256	PS
49	0	101	2.32	153	0.92	205	0		
50	PS	102	2.29	154	0.82	206	PS		
51	PS	103	1.79	155	3.26	207	PS		
52	3.28	104	0	156	0	208	PS		

PS : Pulse waveform

TO SCHEMATIC TO CONTENTS

IC721									
1	PS	11	3.26	21	PS	31	PS	41	PS
2	PS	12	3.26	22	PS	32	PS	42	PS
3	PS	13	N.U.	23	PS	33	PS	43	PS
4	PS	14	0	24	PS	34	PS	44	PS
5	PS	15	N.U.	25	PS	35	PS	45	PS
6	PS	16	PS	26	3.28	36	PS	46	0
7	PS	17	PS	27	0	37	3.28	47	3.28
8	PS	18	PS	28	3.28	38	PS	48	PS
9	PS	19	PS	29	PS	39	PS		
10	PS	20	PS	30	PS	40	PS		

IC725									
1	PS	7	PS	13	PS	19	PS	25	PS
2	PS	8	PS	14	0	20	3.26	26	PS
3	PS	9	PS	15	PS	21	PS	27	3.27
4	PS	10	PS	16	PS	22	1.88	28	3.24
5	PS	11	PS	17	PS	23	PS		
6	PS	12	PS	18	PS	24	PS		

IC731									
1	3.28	12	0	23	PS	34	PS	45	PS
2	PS	13	PS	24	PS	35	PS	46	0
3	3.28	14	0	25	PS	36	N.U.	47	PS
4	PS	15	2.84	26	PS	37	3.27	48	PS
5	PS	16	3.22	27	3.26	38	1.76	49	3.28
6	0	17	3.22	28	0	39	3.28	50	PS
7	PS	18	3.22	29	3.26	40	N.U.	51	PS
8	PS	19	3.22	30	PS	41	0	52	0
9	3.28	20	2.84	31	PS	42	PS	53	PS
10	PS	21	PS	32	PS	43	3.28	54	0
11	PS	22	PS	33	PS	44	PS		

IC861									
1	5.12	12	0	23	0	34	0	45	0
2	5.12	13	0	24	1.56	35	0	46	0
3	5.12	14	0	25	0	36	0	47	0
4	5.12	15	0	26	1.56	37	0	48	0
5	5.12	16	0	27	1.6	38	0	49	1.0
6	5.12	17	0	28	1.6	39	0	50	1.04
7	5.14	18	0	29	1.6	40	0	51	7.14
8	0	19	7.14	30	7.12	41	0	52	1.58
9	0	20	7.12	31	7.12	42	0	53	1.52
10	7.2	21	3.32	32	7.12	43	0	54	5.1
11	0	22	0	33	0	44	7.1		

PS : Pulse waveform

TO SCHEMATIC TO CONTENTS

	E	B	C
Q601	3.28	0	0
Q602	0	3.28	0
Q801	0	0	5.0
Q802	5.0	5.0	0
Q811	0	0	5.0
Q812	5.0	5.0	0
Q831	0	0	2.7
Q832	0	0	0
Q833	0	2.7	0

Q810	
1	5.0
2	0
3	5.0
4	0
5	0

[Measuring Conditions]

1. Power Supply Voltage : DC12.0V - JIG
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD mechanism unit only
   : State of power supply ON

TO SCHEMATIC TO CONTENTS

Description of IC Terminal

D703266YGJ : IC5000

No.	Symbol	I/O	Terminal Description
1	AVREF0	-	Reference voltage input terminal for A/D converter.
2	AVSS	-	GND terminal for A/D,D/A converter.
3	POWER ON CONT	O	POWER ON power supply control output terminal.
4	ACC ON CONT	O	ACC ON power supply control output terminal.
5	AVREF1	-	Reference voltage input terminal for D/A converter.
6	DC-DC CONT	O	DC-DC converter power supply control terminal.
7	O.REM CONT(NC)	-	No connect terminal.
8	FLMD0	-	at Flash (FLMD0) : Power supply terminal for Flash programming. at Mask (IC) : GND connect terminal.
9	VDD	-	Power supply terminal.
10	REGC	-	Capacitor connect terminal for internal regulator output stability.
11	VSS	-	GND terminal.
12	X1(Main CLK)	-	Main clock connect terminal.
13	X2(Main CLK)		
14	/RESET	I	System Reset signal input terminal.
15	XT1(GND)	-	GND terminal.
16	XT2(NC)	-	No connect terminal.
17	NC(SCK)		
18	BATT-DET	I	BATT voltage watch/detection signal input terminal.
19	ACC-DET	I	ACC power supply voltage detection signal input terminal.
20	/DRST	I	On-chip debug mode Reset signal input terminal.
21	/AI-INT	I	AI-NET Interruption request signal input terminal.
22	EEP REG AVS-SDA	O	DATA output terminal to EEPROM, Regulator, AV Selector.
23	EEP REG AVS-SCL	O	SCLK output terminal to EEPROM, Regulator, AV Selector.
24	NC	-	No connect terminal.
25	AI-SOUT	O	AI-NET Pulse signal output terminal for serial communication. at Flash programming : Serial data input terminal.
26	AI-SIN	I	AI-NET Pulse signal input terminal for serial communication. at Flash programming : Serial data output terminal.
27	AI-SCLK	O	AI-NET Pulse signal output terminal for serial communication.
28	AI-R/W	O	AI-NET Read/Write selection signal output terminal.
29	AI-RS	O	AI-NET Register selection signal output terminal.
30	/AI-RESET	O	AI-NET Reset signal output terminal of BUS IC.
31	POWER IC CONT(NC)	-	No connect terminal.
32	IF-MUTE	O	IF MUTE signal output terminal.
33	EVSS	-	GND terminal.
34	EVDD	-	Power supply terminal.
35	RDS TX	O	Command output terminal to RDS Monitor.
36	RDS RX	I	Status input terminal from RDS Monitor.
37	REM-IN	I	Remote control signal input terminal.
38	REM-OUT	O	Remote control signal output terminal.
39	DDI	I	On-chip debug Data input terminal.
40	DDO	O	On-chip debug Data output terminal.
41	DCK	I	On-chip debug Clock input terminal.
42	DMS	I	On-chip debug Mode select signal input terminal.
43	EVOL-SDA	O	DATA output terminal to E-VOL.
44	EVOL-SCL	O	SCLK output terminal to E-VOL.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
45	GUIDE CONT	I	NAVI video/audio interruption signal input terminal. (Lo=interrupt)
46	NAVI RGB	I	NAVI RGB/NTSC detection signal input terminal.
47	NAVI REM SEL A	O	NAVI remote-control output control terminal.
48	NAVI REM SEL B		
49	AUX REM SEL A	O	AUX remote-control output control terminal.
50	AUX REM SEL B		
51	TU-SDA	I/O	I2C-BUS data signal input/output terminal from/to Radio Tuner.
52	TU-SCK	I/O	I2C-BUS clock signal input/output terminal from/to Radio Tuner.
53	NC	-	No connect terminal.
54	TUNER+B_CONT	O	Power supply control signal output terminal for Tuner.
55	/SD	I	SEEK STOP judgment signal input terminal.
56	IPOD CHARGE(NC)	-	No connect terminal.
57	IPOD RELEASE(NC)		
58	IPOD DET(NC)		
59	IPOD RX(NC)		
60	IPOD TX(NC)		
61	ISBUS TX	O	TX signal output terminal of u-COM communication between MAIN and MONITOR.
62	ISBUS RX	I	RX signal input terminal of u-COM communication between MAIN and MONITOR.
63	ISBUS FOUT	O	Frame signal output terminal of u-COM communication between MAIN and MONITOR.
64	SUB STBY	O	Standby signal output terminal to MONITOR u-COM.
65	RDS CLK	O	RDS CLK output terminal.
66	RDS SDA	I/O	RDS DATA input/output terminal.
67	/DAVN	I	RDS DAVN signal input terminal.
68	DVD DI	I	Serial DATA (status) signal input terminal from DVD Mechanism. (EPF-III communication)
69	DVD DO	O	Serial DATA (command) signal output terminal to DVD Mechanism. (EPF-III communication)
70	DVD CLK	O	Serial communication synchronous clock signal output terminal to DVD Mechanism. (EPF-III communication)
71	DAC LATCH	O	LATCH control signal output terminal to DAC.
72	DAC DATA	O	DATA control signal output terminal to DAC.
73	DAC CLK	O	CLOCK control signal output terminal to DAC.
74	ISBUS FIN	I	Frame signal input terminal of u-COM communication between MAIN and MONITOR.
75	BUZZER	O	BUZZER signal output terminal.
76	/DVD SRQ	I	Status request signal input terminal from DVD Mechanism. (EPF-III communication)
77	/DVD CS	O	Chip Select signal output terminal to DVD Mechanism. (EPF-III communication)
78	/DVD RST	O	System Reset signal output terminal to DVD Mechanism.
79	DVD EJECT	O	DVD Mechanism compulsive EJECT control terminal.
80	/DVD SW2	I	DVD Mechanism DISC insertion detection-2 input terminal.
81	/DVD SW1	I	DVD Mechanism DISC insertion detection-1 input terminal.
82	DVD 7V CONT	O	DVD Servo system +7V power supply control output terminal.
83	DVD 5V CONT	O	DVD Servo system +5V power supply control output terminal.
84	DVD 3.3V CONT	O	DVD +3.3V & DAC 5V power supply control output terminal.
85	DVD 1V CONT	O	DVD +1V power supply control output terminal.
86	/ZERO DET IN	I	AUDIO MUTE signal input terminal from DAC.
87	/M-MUTE IN	I	MUTE signal input terminal from DVD Mechanism.
88	/V-MUTE IN	I	Video-MUTE signal input terminal from DVD Mechanism.
89	NC	-	No connect terminal.
90	MTRLVL1	O	Motor Driver voltage control signal output terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
91	MTR-1	O	Motor control-1 output terminal.
92	MTR-2	O	Motor control-2 output terminal.
93	MTR-3	O	Motor control-3 output terminal.
94	MTR-4	O	Motor control-4 output terminal.
95	TILT PHOTO	I	TILT-PHOTO pulse signal (monitor angle) input terminal.
96	/15 SW	I	Movable Nose position/condition detection switch signal input terminal.
97	/END SW		
98	/FULL SW		
99	/TILT SW		
100	NC	-	No connect terminal.
101	NOSE-PWR	O	Nose 5V power supply control output terminal to FRONT DF.
102	LED CONT	O	LED power supply control signal output terminal to FRONT DF.
103	BVSS	-	GND terminal.
104	BVDD	-	Power supply terminal.
105	DISC IND	O	DISC IN indicator control output terminal.
106	VSEL IND	O	V.SEL indicator control output terminal.
107	LED RED (#1)	O	RED LED control signal (PWM) output terminal to DF Nose.
	NC ($1)	-	No connect terminal.
108	LED BLUE/GREEN	O	BLUE/GREEN LED control signal (PWM) output terminal to DF Nose.
109	NC	-	No connect terminal.
110	FLMD1	O	at Flash (FLMD1) : Power supply terminal for Flash memory programming mode.
111	AREA-2	I	Destination switching-1 input terminal.
112	AREA-1	I	Destination switching-2 input terminal.
113	NC	-	No connect terminal.
114			
115	NC(PC-IF1)	-	No connect terminal. (for design examination)
116	NC(PC-IF2)		
117	NC	-	No connect terminal.
I			
120			
121	SW_REG_OSC_CONT	O	Switching frequency control output terminal.
122	NC	-	No connect terminal.
123	SYSREG-RESET	O	Reset output terminal to System Regulator IC.
124	/A-MUTE	O	A.MUTE signal output terminal.
125	/D-MUTE	O	OPT-output ON/OFF control output terminal.
126	NC	-	No connect terminal.
127	ENC-B	I	Rotary Encoder signal input terminal.
128	ENC-A		
129	LIGHT SENSOR	I	A/D input terminal for AUTO DIMMER.
130	NOSE-DET	I	FRONT DF Nose detect terminal.
131	KEY-2	I	KEY-2 input terminal. (Hard Key)
132	KEY-1	I	KEY-1 input terminal. (Rotary Encoder Push)
133	RDS MP	I	MP signal input terminal from RDS Decoder.
134	S-METER	I	Signal Meter voltage input terminal.
135	DVD TEMP	I	DVD Mechanism temperature detect terminal.
136	/PAUSE	I	Audio signal detect terminal.
137	RDS CONT	O	Control terminal for preventing RDS data input of adjoining station.

NOTE : (#1) : For IVA-D100R Model Only, ($1) : For IVA-D100RB Model Only, Others : Common.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
138	AI+B CONT	O	AI-NET Power supply control signal output terminal.
139	REAR-VMUTE	O	REAR VMUTE signal output terminal.
140	/REVERSE	I	Rear Camera signal input terminal.
141	IN-INT	I	IN-INT signal input terminal.
142	F-PARK(PULL-UP)	-	Pull-up connect terminal.
143	H-PARK	I	Hand Brake signal input terminal. (Hi=stopping, Lo=driving)
144	P-ANT(NC)	-	No connect terminal.

D703262YGC : IC8001

No.	Symbol	I/O	Terminal Description
1	AVREF0	-	Reference voltage input terminal for A/D converter.
2	AVSS	-	GND terminal for A/D,D/A converter.
3	NC	-	No connect terminal.
4			
5	AVREF1	-	Reference voltage input terminal for D/A converter.
6	VGH-CONT	O	LCD power supply +13V control signal output terminal.
7	VGL-CONT	O	LCD power supply -16V control signal output terminal.
8	FLMD0	-	at Flash (FLMD0) : Power supply terminal for Flash programming. at Mask (IC) : GND connect terminal.
9	VDD	-	Power supply terminal.
10	REGC	-	Capacitor connect terminal for regulator.
11	VSS	-	GND terminal.
12	X IN	-	Crystal connect terminal for main clock oscillation.
13	X OUT		
14	RESET	I	System Reset signal input terminal.
15	XT IN	-	Crystal connect terminal for sub clock oscillation.
16	XT OUT		
17	NC	-	No connect terminal.
18	BAT DET	I	Compulsive standby detection input terminal.
19	SUB STBY	I	Standby signal input terminal from MAIN u-COM.
20	DRST	I	On-chip debug mode Reset signal input terminal.
21	ISBUS FIN	I	Frame signal input terminal of u-COM communication between MAIN and MONITOR.
22	RGB CS	O	Chip Enable signal output terminal to RGB decoder.
23	RGB DO	O	Serial data output terminal to RGB decoder.
24	RGB CLK	O	Clock siganl output terminal to RGB decoder.
25	ISBUS TX	O	TX signal output terminal of u-COM communication between MAIN and MONITOR.
26	ISBUS RX	I	RX signal input terminal of u-COM communication between MAIN and MONITOR.
27	ISBUS FOUT	O	Frame signal output terminal of u-COM communication between MAIN and MONITOR.
28	NC	-	No connect terminal.
29	Y/COMP SEL	O	Luminance signal / Composite signal switching signal output terminal. (Hi=Y, Lo=Composite)
30	N/P IN	I	NTSC/PAL automatic distinction signal input terminal.
31	N/P SEL	O	NTSC/PAL switching signal output terminal. (Hi=NTSC, Lo=PAL)
32	SYNC SEL	O	Synchronous siganl switching signal output terminal. (Hi=NAVI side)
33	EVSS	-	GND terminal.
34	EVDD	-	Power supply terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
35	NAVI TX	O	TX signal output terminal to NAVI for UART communication.
36	NAVI RX	I	RX signal input terminal from NAVI for UART communication.
37	NAVI CONT	I	NAVI communication error recovery processing terminal.
38	NC	-	No connect terminal.
39	DDI	I	On-chip debug Data input terminal.
40	DDO	O	On-chip debug Data output terminal.
41	DCK	I	On-chip debug Clock input terminal.
42	DMS	I	On-chip debug Mode select signal input terminal.
43 I 46	NC	-	No connect terminal.
47	Timer/Counter	O	Pulse output terminal to backlight inverter circuit.
48	NC	-	No connect terminal.
49	OSD RESET	O	RESET signal output terminal to OSD.
50	OSD CS	O	Chip Enable signal output terminal to OSD.
51	OSD SOUT	O	Serial data output terminal to OSD.
52	OSD CLK	O	Clock signal output terminal to OSD.
53	NC	-	No connect terminal.
54	V-MUTE	O	Video MUTE control output terminal.
55	NC	-	No connect terminal.
56	FORCE	O	Force Reactor signal output terminal.
57	BL PWM	O	PWM signal output terminal for backlight adjustment.
58 I 64	NC	-	No connect terminal.
65	MDS	O	Screen mode control signal output terminal to Timing Control IC.
66	MDW		
67	MDN		
68	NC	-	No connect terminal.
69	BVSS	-	GND terminal.
70	BVDD	-	Power supply terminal.
71 I 75	NC	-	No connect terminal.
76	FLMD1	O	at Flash (FLMD1) : Power supply terminal for Flash memory programming mode. at Mask (IC) : GND connect terminal.
77	NC	-	No connect terminal.
78	BL OFF	O	Backlight power supply control signal output terminal. (Hi=ON(lighting off), Lo=OFF(lighting))
79	BL CANCEL	I	Compulsive backlight lighting control input terminal. (Hi=lighting, Lo=usually) (for design verification)
80 81	NC	-	No connect terminal.
82	LCD/V5V CONT	O	LCD Visual 5V power supply control output terminal.
83	MONI+7V CONT	O	Visual system power supply control output terminal.
84	OSD+3.3V CONT	O	OSD IC power supply control output terminal.
85	FR/BL CONT	O	Force Reactor & Backlight Inverter power supply control output terminal.
86 87 88	NC	-	No connect terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
89	BL TEMP	I	Backlight temperature detect terminal.
90	NC	-	No connect terminal.
91	TP SEL1	O	Touch Panel signal output terminal.
92	TP SEL2		
93	TP SEL3		
94	TP SEL4		
95	TP-X	I	Touch Panel signal input terminal.
96	TP-Y		
97	NC	-	No connect terminal.
98			
99	LED BLUE/RED	O	BLUE/RED LED control signal output terminal to Glide Touch Panel.
100	LED GREEN (#1)	O	GREEN LED control signal output terminal to Glide Touch Panel. (PWM)
	NC ($1)	-	No connect terminal.

NOTE : (#1) : For IVA-D100R Model Only, ($1) : For IVA-D100RB Model Only, Others : Common.

TO SCHEMATIC TO CONTENTS

MN35206UB : IC601 (DV37M15B)

No.	Symbol	I/O	Terminal Description
1	MDQ9	I/O	SDRAM data 9 terminal.
2	MDQ5	I/O	SDRAM data 5 terminal.
3	VSS	-	GND terminal.
4	MDQ10	I/O	SDRAM data 10 terminal.
5	MDQ4	I/O	SDRAM data 4 terminal.
6	VDD33	-	I/O power supply terminal.
7	MDQ11	I/O	SDRAM data 11 terminal.
8	MDQ3	I/O	SDRAM data 3 terminal.
9	VSS	-	GND terminal.
10	MDQ12	I/O	SDRAM data 12 terminal.
11	MDQ2	I/O	SDRAM data 2 terminal.
12	VDD33	-	I/O power supply terminal.
13	MDQ13	I/O	SDRAM data 13 terminal.
14	MDQ1	I/O	SDRAM data 1 terminal.
15	MDQ14	I/O	SDRAM data 14 terminal.
16	VSS	-	GND terminal.
17	MDQ0	I/O	SDRAM data 0 terminal.
18	MDQ15	I/O	SDRAM data 15 terminal.
19	VDD33	-	I/O power supply terminal.
20	VSS	-	GND terminal.
21	EXADR20	I/O	External memory address 20 terminal.
22	NEXWE	O	External memory write enable output terminal.
23	EXADT0	I/O	External memory address data 0 terminal.
24	EXADT4	I/O	External memory address data 4 terminal.
25	EXADT8	I/O	External memory address data 8 terminal.
26	VDD12	-	Logic power supply terminal.
27	EXADT12	I/O	External memory address data 12 terminal.
28	VDD33	-	I/O power supply terminal.
29	VSS	-	GND terminal.
30	EXADR16	I/O	External memory address 16 terminal.
31	EXADR18	I/O	External memory address 18 terminal.
32	EXADT14	I/O	External memory address data 14 terminal.
33	EXADT10	I/O	External memory address data 10 terminal.
34	VDD33	-	I/O power supply terminal.
35	VSS	-	GND terminal.
36	EXADT6	I/O	External memory address data 6 terminal.
37	EXADT2	I/O	External memory address data 2 terminal.
38	NEXCE	O	External memory chip select output terminal.
39	EXADT1	I/O	External memory address data 1 terminal.
40	EXADT5	I/O	External memory address data 5 terminal.
41	EXADT9	I/O	External memory address data 9 terminal.
42	EXADT13	I/O	External memory address data 13 terminal.
43	EXADR17	I/O	External memory address 17 terminal.
44	VDD12	-	Logic power supply terminal.
45	EXADR19	I/O	External memory address 19 terminal.
46	EXADT15	I/O	External memory address data 15 terminal.
47	EXADT11	I/O	External memory address data 11 terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
48	VDD33	-	I/O power supply terminal.
49	VSS	-	GND terminal.
50	EXADT7	I/O	External memory address data 7 terminal.
51	EXADT3	I/O	External memory address data 3 terminal.
52	NEXOE	O	External memory output enable terminal.
53	P15	I	FRAME detection input terminal.
54	P14	I	EJECT input terminal.
55	P13	O	V-MUTE output terminal.
56	P12	I	MECHA_SW5 input terminal.
57	P11(PULL-UP)	-	Pull-up connect terminal.
58	P10(PULL-UP)		
59	P9	I	MECHA_SW4 input terminal.
60	P8	I	MECHA_SW3 input terminal.
61	P7	I	MECHA_SW2 input terminal.
62	VDD33	-	I/O power supply terminal.
63	MMOD	I	Test mode setting terminal.
64	VSS	-	GND terminal.
65	P6	I	MECHA_SW1 input terminal.
66	P5	O	K_SRQ output terminal.
67	P4	I	K_S_CS input terminal.
68	P3	I	K_S_CLK input terminal.
69	P2	O	K_S_Data output terminal.
70	P1	I	K_S_Data input terminal.
71	P0	O	SRAM chip select output terminal.
72	FG	I	Motor Frequency Generator input terminal.
73	NRST	I	Master reset input terminal.
74	VSS	-	GND terminal.
75	NC(DRV0)	-	No connect terminal.
76	SPINDLE(DRV1)	O	Spindle driver control output terminal.
77	PlayB(DRV2)	O	Sled motor driver-B output terminal.
78	PlayA(DRV3)	O	Sled motor driver-A output terminal.
79	DRVCNT1(DRV4)	O	Driver logic control output-1 terminal.
80	DRVCNT2(DRV5)	O	Driver logic control output-2 terminal.
81	LMT_SW(DRV6)	I	LIMIT SW input terminal.
82	VRCNT(DRV7)	O	VR control output terminal.
83	LOAD_M(DRV8)	O	Loading driver output terminal.
84	VDD33	-	I/O power supply terminal.
85	P16(PULL-UP)	-	Bus Separate setting terminal. (Pull-up connect terminal.)
86	P17(PULL-UP)		
87	VSS	-	GND terminal.
88	MONI7(NC)	-	No connect terminal.
89	VDD12	-	Logic power supply terminal.
90	MONI6(NC)	-	No connect terminal.
91	MONI5(NC)		
92	MONI4(NC)		
93	VSS	-	GND terminal.
94	MONI3(NC)	-	No connect terminal.
95	MONI2(NC)		

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
96	MONI1(NC)	-	No connect terminal.
97	MONI0(NC)		
98	AVDDD	-	Analog power supply terminal.
99	PLFIL1	O	Capacitor connect terminal for DRCVCO.
100	AVSSD	-	Analog GND terminal.
101	VREFH7	O	ADC reference voltage terminal for DRC. (TOP)
102	VREFM7	O	ADC reference voltage terminal for DRC. (MDL)
103	VREFL7	O	ADC reference voltage terminal for DRC. (BTM)
104	CCAPA	O	Capacitor connect terminal for INLINE CAPA.
105	AVSSC	-	Analog GND terminal.
106	CDATA	O	Capacitor connect terminal for INLINE DATA.
107	AVDDC	-	Analog power supply terminal.
108	ANAMONI1	O	Internal analog monitor 1 terminal.
109	ANAMONI2	O	Internal analog monitor 2 terminal.
110	RFINN	I	External RF input (-) terminal.
111	RFINP	I	External RF input (+) terminal.
112	VIN6RF	I	RF input 6 terminal.
113	VIN5RF	I	RF input 5 terminal.
114	VIN4RF	I	RF input 4 terminal.
115	VIN3RF	I	RF input 3 terminal.
116	VIN2RF	I	RF input 2 terminal.
117	VIN1RF	I	RF input 1 terminal.
118	AVDDB	-	Analog power supply terminal.
119	VREFH5	I	5 bit AD reference voltage H terminal
120	VREFM5	I	5 bit AD reference voltage M terminal
121	VREFL5	I	5 bit AD reference voltage L terminal
122	AVSSB	-	Analog GND terminal.
123	LPC1	I	DVD LPC input terminal.
124	LPCO1	O	DVD LPC output terminal.
125	LPC2	I	CD LPC input terminal.
126	LPCO2	O	CD LPC output terminal.
127	VREFH	O	Decoupling terminal of reference voltage 2.20V. / Reference power supply terminal to Pickup.
128	VHALF	O	Decoupling terminal of reference voltage 1.65V.
129	VIN10	I	CD head input terminal.
130	VIN9		
131	VIN8	I	DVD head input terminal.
132	VIN7		
133	VIN6	I	CD head input terminal.
134	VIN5		
135	VIN4	I	DVD head input terminal.
136	VIN3		
137	VIN2		
138	VIN1		
139	AD2(NC)	-	No connect terminal.
140	AD1	I	TEMP_H input terminal.
141	AVDDH	-	Analog power supply terminal.
142	VREFL10	O	AD self bias reference terminal. (Low side)
143	AD0	I	TEMP_L input terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
144	VREFH10	O	AD self bias reference terminal. (Hi side)
145	AVSSH	-	Analog GND terminal.
146	VCOF(NC)	-	No connect terminal.
147	PWM1	O	Tracking drive output terminal.
148	PWM0	O	Focus drive output terminal.
149	DAC1OUT(NC)	-	No connect terminal.
150	AVDDF	-	Power supply terminal for DAC.
151	DAC2OUT(NC)	-	No connect terminal.
152	DAC3OUT(NC)		
153	VREF	I	Internal DAC reference voltage terminal.
154	IREF1	I	Resistor connect terminal for internal DAC bias current setup.
155	COMP	I	Capacitor connect terminal for internal DAC stable.
156	DAC4OUT	O	Y(brightness) / Comp(composite) analog signal terminal.
157	AVSSF	-	GND terminal for DAC.
158	DAC5OUT(NC)	-	No connect terminal.
159	AVDDE	-	Power supply terminal for PLL.
160	AVSSE	-	GND terminal for PLL.
161	AVDDG	-	Power supply terminal for PLL.
162	AVSSG	-	GND terminal for PLL.
163	DACCK	O	Master clock output terminal.
164	VSS	-	GND terminal.
165	OSC1	I	OSC input terminal. (27MHz)
166	OSC0(NC)	-	No connect terminal.
167	VDD33	-	I/O power supply terminal.
168	EXTCK(PULL-DOWN)	-	Pull-down connect terminal.
169	LRCK	O	LR channel clock output terminal.
170	SRCK	O	Bit clock output terminal.
171	ADOUT3(NC)	-	No connect terminal.
172	VDD12	-	Logic power supply terminal.
173	VSS	-	GND terminal.
174	ADOUT2(NC)	-	No connect terminal.
175	ADOUT1(NC)		
176	ADOUT0	O	Audio Data 0 output terminal.
177	IECOUT	O	SPDIF output terminal.
178	VDD33	-	I/O power supply terminal.
179	VSS	-	GND terminal.
180	SCLOCK(PULL-UP)	-	Pull-up connect terminal.
181	EXTRG0(PULL-DOWN)	-	Pull-down connect terminal.
182	SDATA(PULL-UP)	-	Pull-up connect terminal.
183	EXTRG1(PULL-DOWN)	-	Pull-down connect terminal.
184	TRCCLK	O	A_Mute output terminal.
185	TRCDATA0(NC)	-	No connect terminal.
186	TRCDATA1(NC)		
187	TRCDATA2(NC)		
188	TRCDATA3(NC)		
189	TRCST(NC)		
190	VDD33	-	I/O power supply terminal.
191	VSS	-	GND terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
192	MDQ24	I/O	SDRAM data 24 terminal.
193	MDQ23	I/O	SDRAM data 23 terminal.
194	MDQ25	I/O	SDRAM data 25 terminal.
195	MDQ22	I/O	SDRAM data 22 terminal.
196	VDD33	-	I/O power supply terminal.
197	MDQ26	I/O	SDRAM data 26 terminal.
198	MDQ21	I/O	SDRAM data 21 terminal.
199	MDQ27	I/O	SDRAM data 27 terminal.
200	MDQ20	I/O	SDRAM data 20 terminal.
201	VSS	-	GND terminal.
202	VDD33	-	I/O power supply terminal.
203	MDQ28	I/O	SDRAM data 28 terminal.
204	MDQ19	I/O	SDRAM data 19 terminal.
205	VSS	-	GND terminal.
206	MDQ29	I/O	SDRAM data 29 terminal.
207	MDQ18	I/O	SDRAM data 18 terminal.
208	MDQ30	I/O	SDRAM data 30 terminal.
209	VDD33	-	I/O power supply terminal.
210	MDQ17	I/O	SDRAM data 17 terminal.
211	MDQ31	I/O	SDRAM data 31 terminal.
212	MDQ16	I/O	SDRAM data 16 terminal.
213	VSS	-	GND terminal.
214	DQM3(NC)	-	No connect terminal.
215	DQM2(NC)		
216	VDD33	-	I/O power supply terminal.
217	MA3	O	SDRAM address 3 terminal.
218	VSS	-	GND terminal.
219	VDD12	-	Logic power supply terminal.
220	MA4	O	SDRAM address 4 terminal.
221	MA2	O	SDRAM address 2 terminal.
222	VSS	-	GND terminal.
223	MA5	O	SDRAM address 5 terminal.
224	MA1	O	SDRAM address 1 terminal.
225	VDD33	-	I/O power supply terminal.
226	MA6	O	SDRAM address 6 terminal.
227	MA0	O	SDRAM address 0 terminal.
228	MA7	I	SDRAM address 7 terminal.
229	VSS	-	GND terminal.
230	MA10	O	SDRAM address 10 terminal.
231	VDD33	-	I/O power supply terminal.
232	BA1	O	SDRAM bank address 1 terminal.
233	MA8	I/O	SDRAM address 8 terminal.
234	BA0	O	SDRAM bank address 0 terminal.
235	VSS	-	GND terminal.
236	VDD12	-	Logic power supply terminal.
237	MA11	O	SDRAM address 11 terminal.
238	MA9	O	SDRAM address 9 terminal.
239	VDD33	-	I/O power supply terminal.

TO SCHEMATIC TO CONTENTS

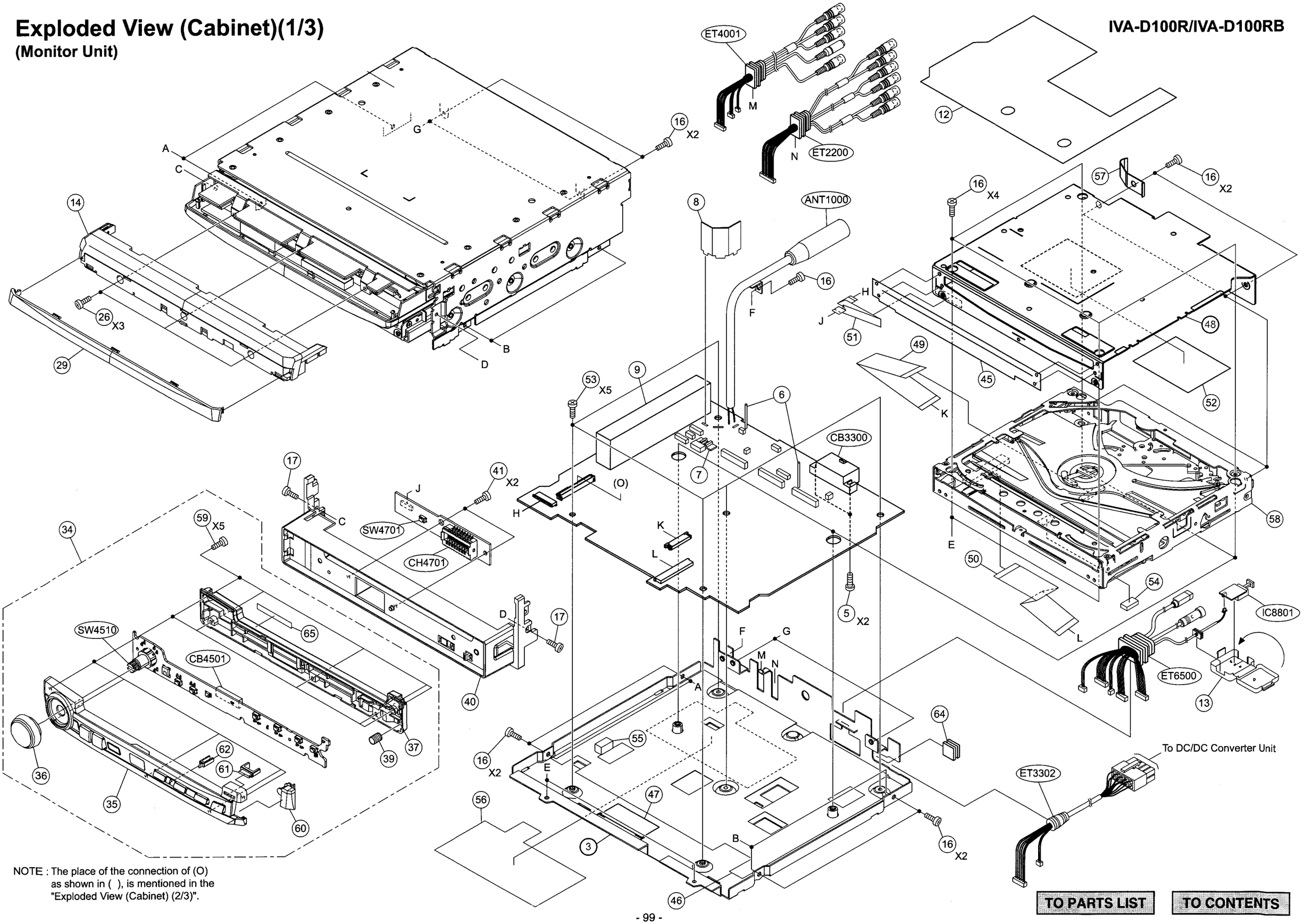
No.	Symbol	I/O	Terminal Description
240	NCSM	O	SDRAM chip select terminal.
241	MCKI	I	Clock input terminal from SDRAM.
242	VSS	-	GND terminal.
243	MCK	O	Clock output terminal to SDRAM.
244	NRAS	O	SDRAM row address strobe terminal.
245	NCAS	O	SDRAM column address strobe terminal.
246	VDD33	-	I/O power supply terminal.
247	VSS	-	GND terminal.
248	NWE	O	SDRAM write enable terminal.
249	DQM0	O	SDRAM data mask 0 terminal.
250	VSS	-	GND terminal.
251	DQM1	O	SDRAM data mask 1 terminal.
252	MDQ7	I/O	SDRAM data 7 terminal.
253	VSS	-	GND terminal.
254	MDQ8	I/O	SDRAM data 8 terminal.
255	VDD33	-	I/O power supply terminal.
256	MDQ6	I/O	SDRAM data 6 terminal.

TO SCHEMATIC TO CONTENTS

Exploded View (Cabinet)(1/3)

(Monitor Unit)

IVA-D100R/IVA-D100RB



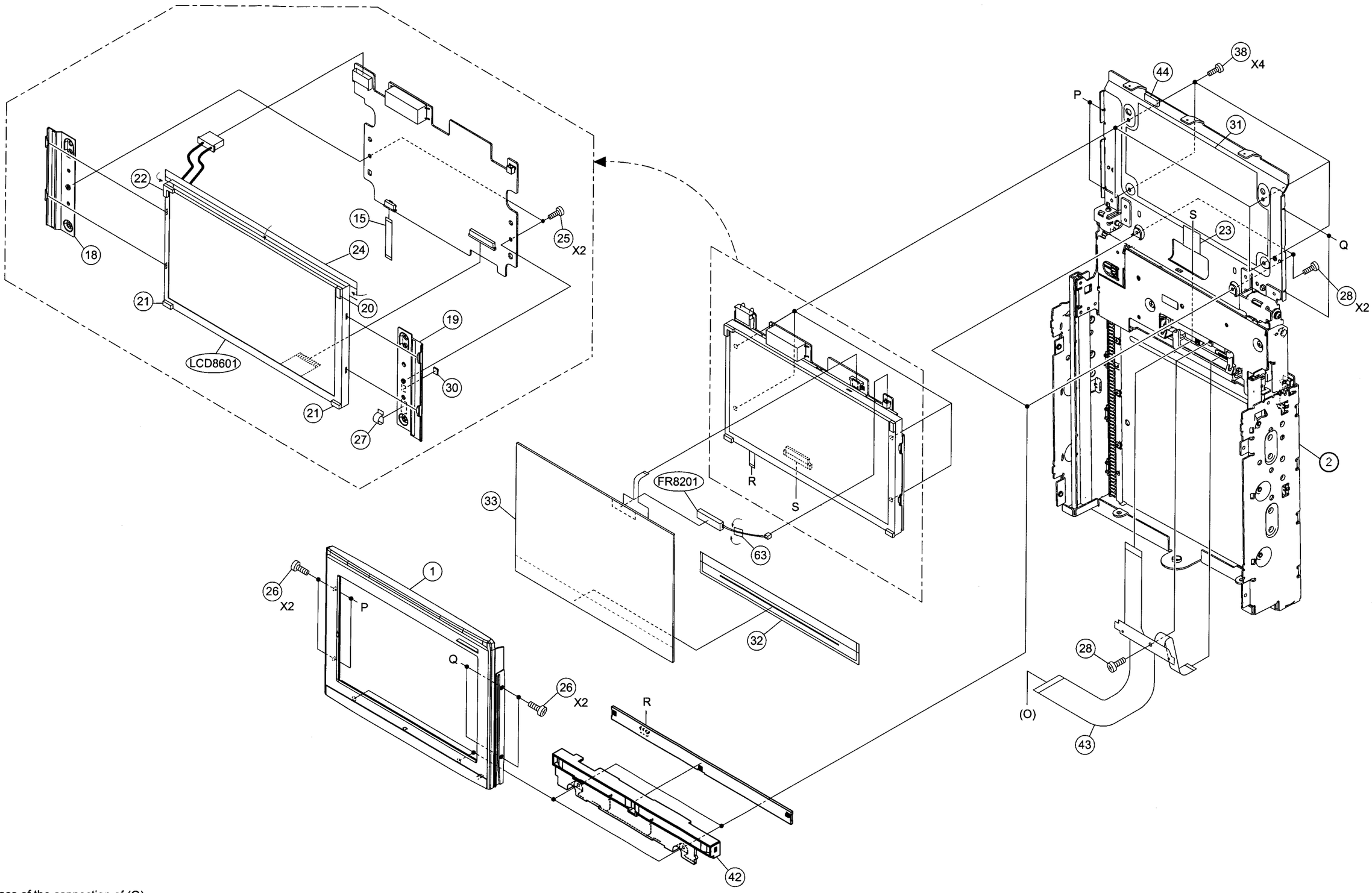
NOTE : The place of the connection of (O) as shown in ( ), is mentioned in the "Exploded View (Cabinet) (2/3)".

TO PARTS LIST TO CONTENTS

Exploded View (Cabinet)(2/3)

(Monitor Unit)

IVA-D100R/IVA-D100RB

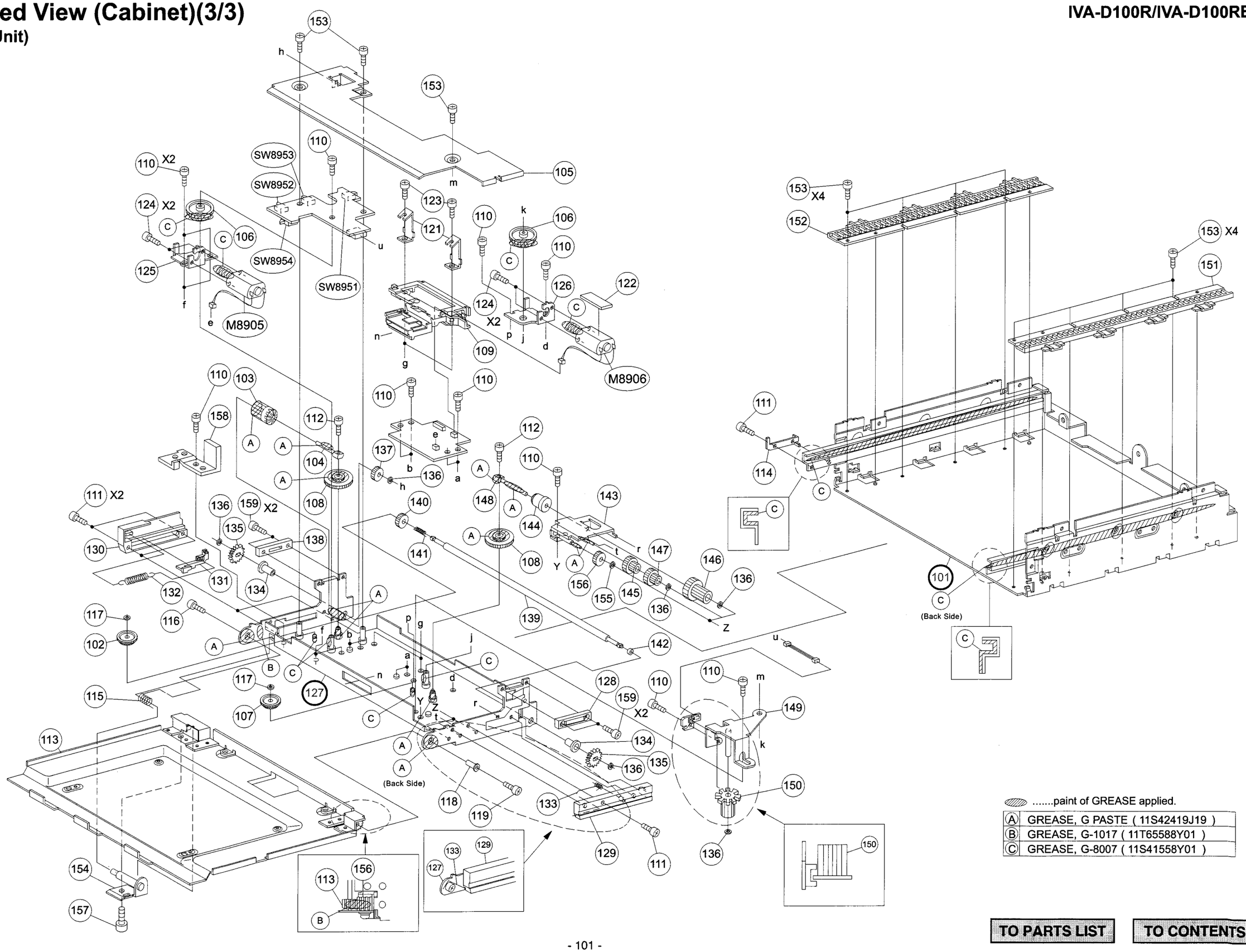


NOTE : The place of the connection of (O) as shown in ( ), is mentioned in the "Exploded View (Cabinet) (1/3)".

TO PARTS LIST TO CONTENTS

Exploded View (Cabinet)(3/3)

(Monitor Unit)



..... paint of GREASE applied.

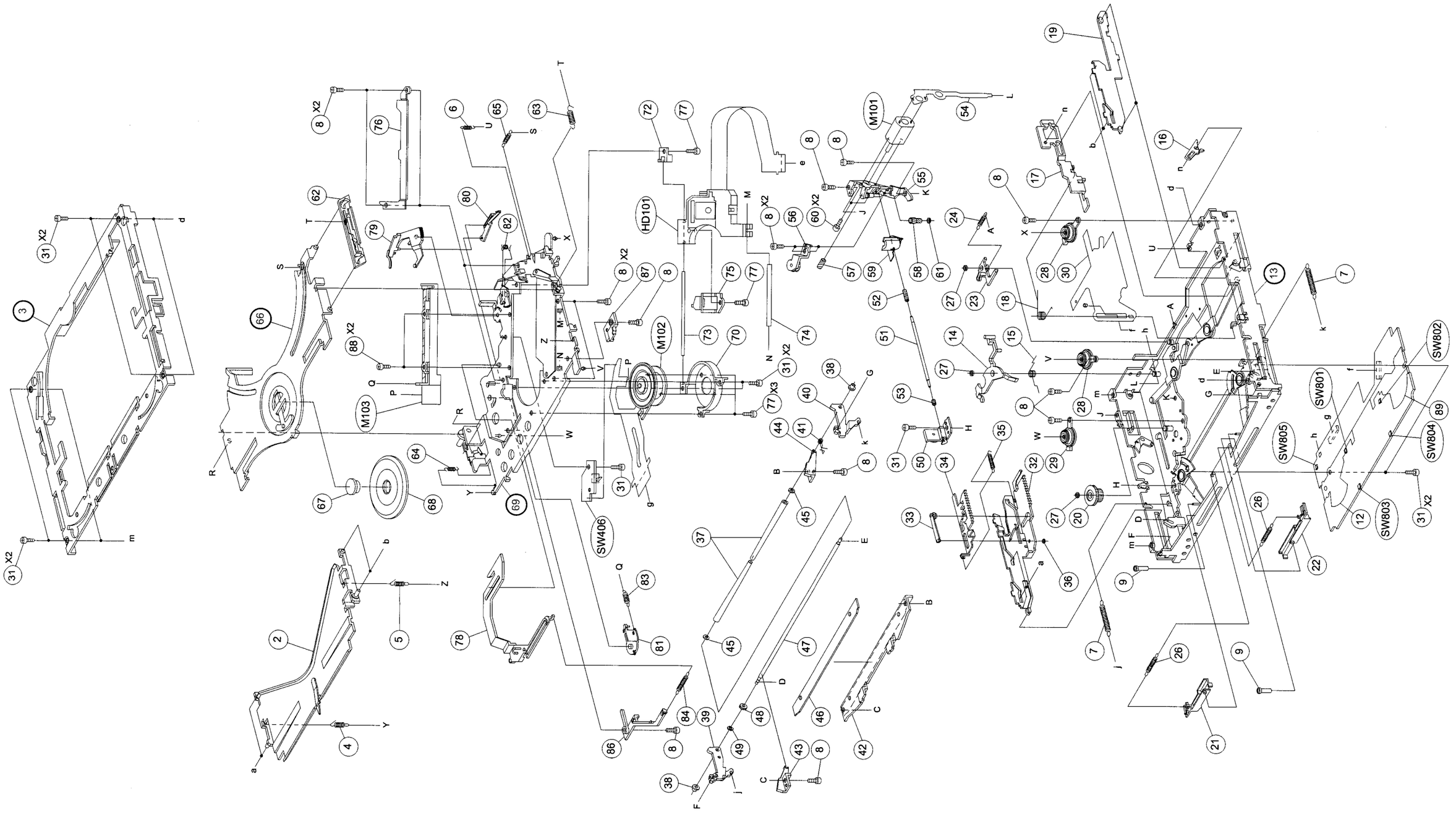
A	GREASE, G PASTE (11S42419J19)
B	GREASE, G-1017 (11T65588Y01)
C	GREASE, G-8007 (11S41558Y01)

TO PARTS LIST TO CONTENTS

Exploded View(DVD Deck Mechanism)

IVA-D100R/IVA-D100RB

(DV37M15B)



TO PARTS LIST TO CONTENTS

* Power Amplifier Unit Block

Contents

Specifications	104
Parts Layout on P.W.Board	105
Schematic Diagram	106
Terminal Voltage of IC/ TR	107
Exploded View (Cabinet)	108

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

TO CONTENTS

Specifications

Power Supply	DC14.4V
Power Output (TCD-782 (1kHz, 0dB), T.H.D.10%)	16W / ch / 4 ohm
Back Up Current (at Remote OFF)	2mA
Current Drain (No Signal)	400mA
Dimensions (W x H x D)	100 x 40 x 144mm
Weight	0.47kg

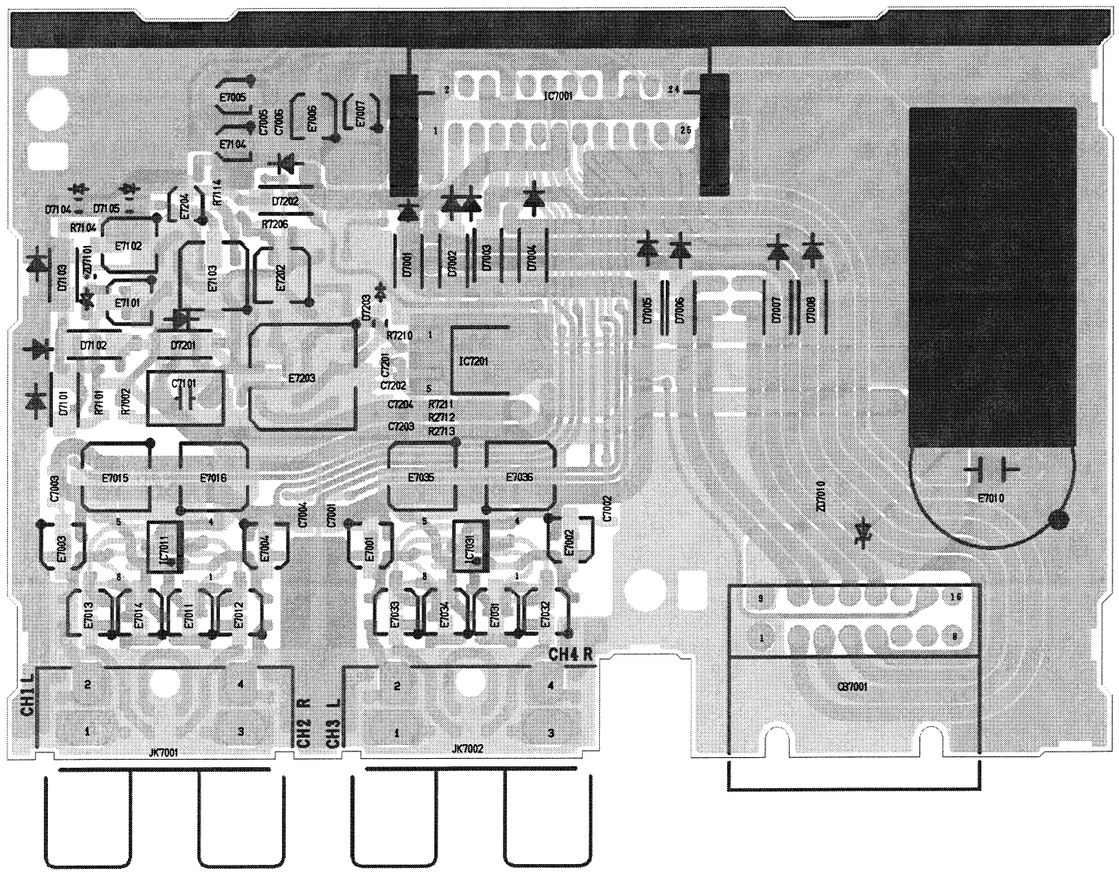
NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

TO CONTENTS

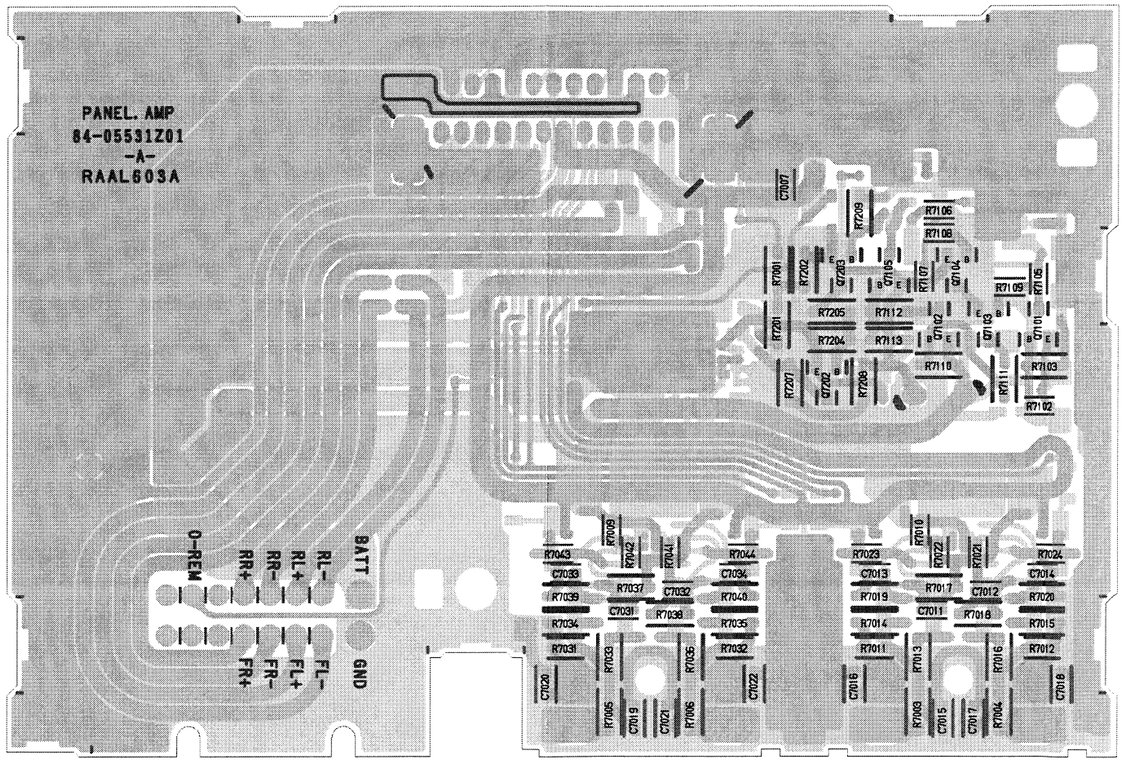
Parts Layout on P.W.Board

TO CONTENTS

AMP P.W.Board (Component Side View)



AMP P.W.Board (Foil Side View)

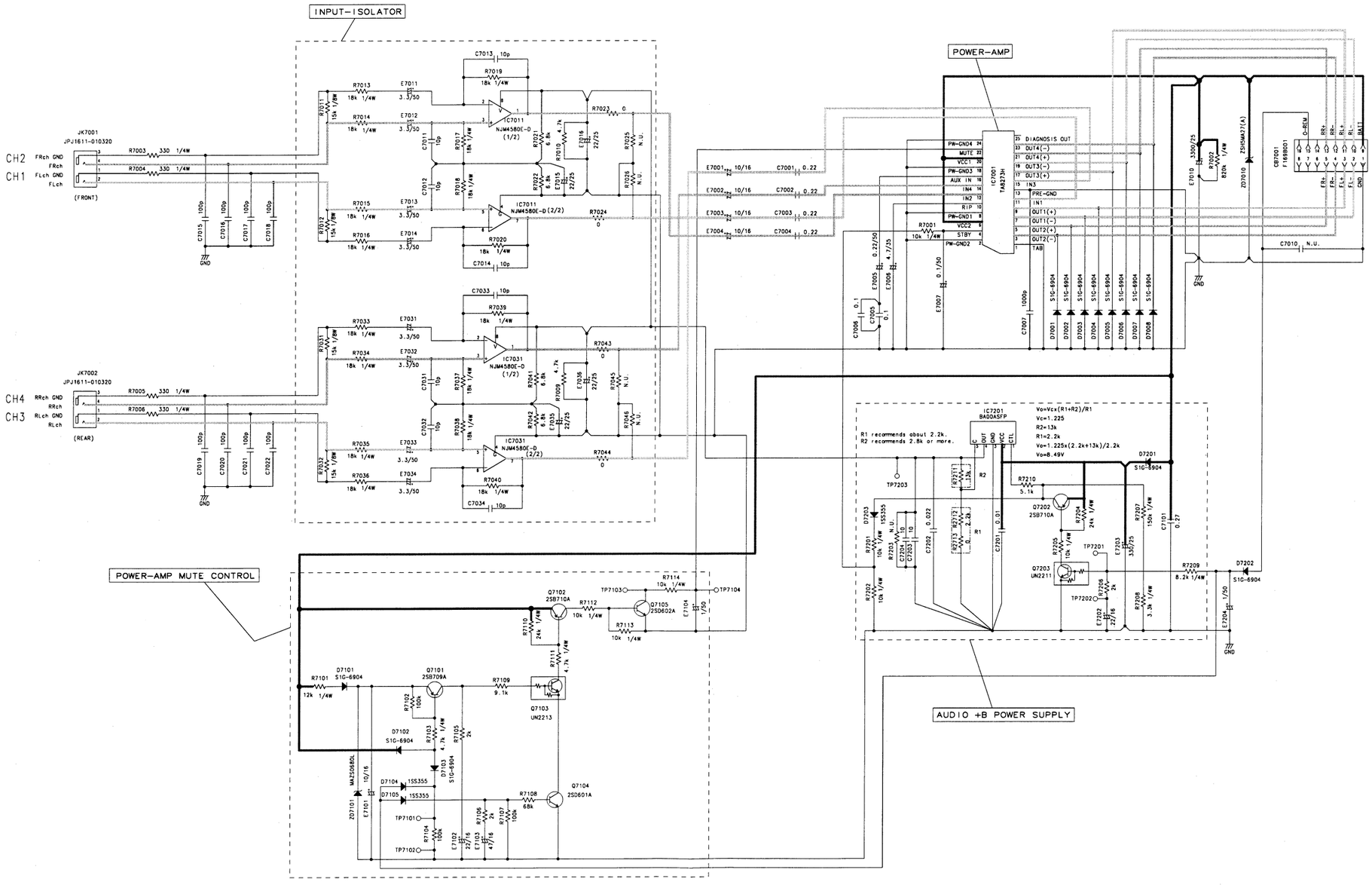


Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

Schematic Diagram

IVA-D100R/IVA-D100RB



AMP P.W.Board
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD | TO PARTS LIST | TO CONTENTS

Terminal Voltage of IC/TR

IC7001									
Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0	6	14.25	11	1.14	16	0.94	21	7.79
2	0	7	7.78	12	1.13	17	7.78	22	3.38
3	7.71	8	0	13	0	18	0	23	7.76
4	6.49	9	7.78	14	1.12	19	7.82	24	0
5	7.74	10	8.69	15	1.12	20	14.25	25	0.15

IC7011	
Pin No.	Voltage[V]
1	4.29
2	4.29
3	4.29
4	0
5	4.26
6	4.29
7	4.29
8	8.53

IC7031	
Pin No.	Voltage[V]
1	4.26
2	4.26
3	4.26
4	0
5	4.26
6	4.26
7	4.26
8	8.53

IC7201	
Pin No.	Voltage[V]
1	11.41
2	13.59
3	0
4	8.53
5	1.25

Q7101	
Pin No.	Voltage[V]
E	6.78
B	6.72
C	0

Q7102	
Pin No.	Voltage[V]
B	14.23
E	14.26
C	0

Q7103	
Pin No.	Voltage[V]
E	0
B	0
C	14.27

Q7104	
Pin No.	Voltage[V]
E	0
B	0.59
C	0

Q7105	
Pin No.	Voltage[V]
E	0
B	0
C	1.86

Q7202	
Pin No.	Voltage[V]
B	13.01
E	13.62
C	13.6

Q7203	
Pin No.	Voltage[V]
E	0
B	7.65
C	0

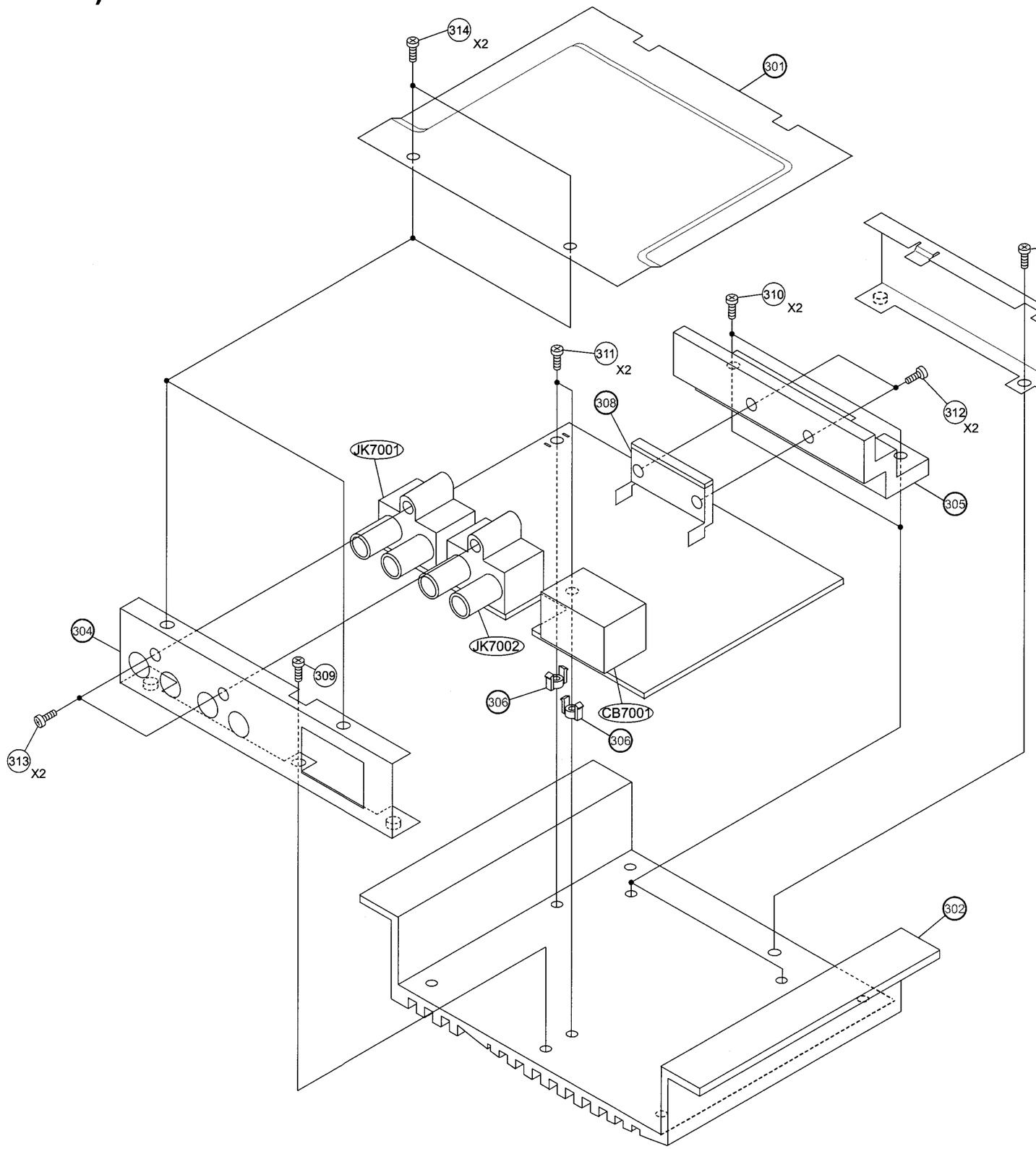
[Measuring Conditions]

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD play : TDV-540A (Title2, Chapter1, 75% SMPTE Color Bar)
   : Shuttle Open
   : 25°C
   : Screen display prohibition release

TO SCHEMATIC TO CONTENTS

Exploded View (Cabinet)

(Power Amplifier Unit)



TO PARTS LIST TO CONTENTS

* DC/DC Converter Unit Block

Contents

Parts Layout on P.W.Board	110
Schematic Diagram	111
Terminal Voltage of IC/ TR	112
Exploded View (Cabinet)	113

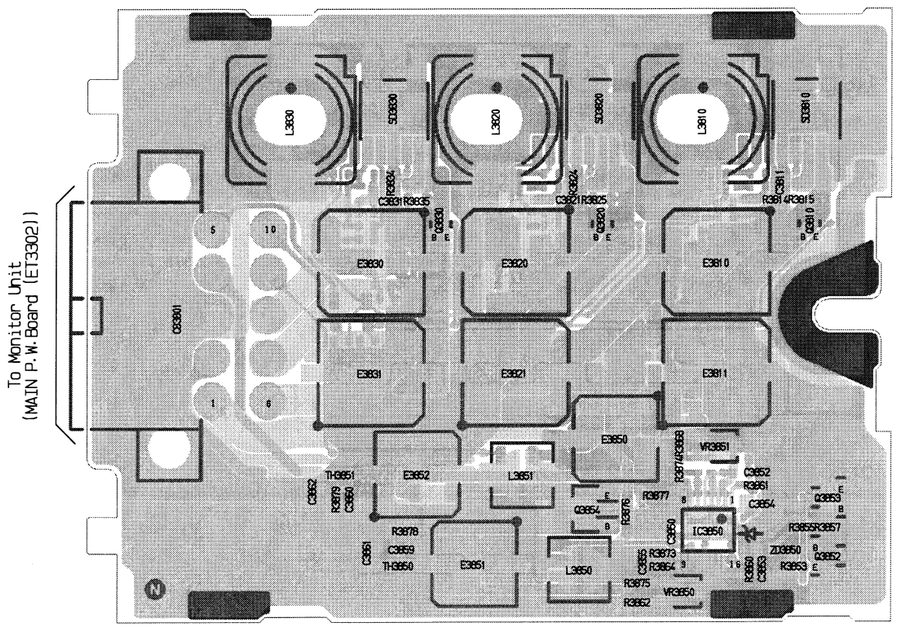
NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

TO CONTENTS

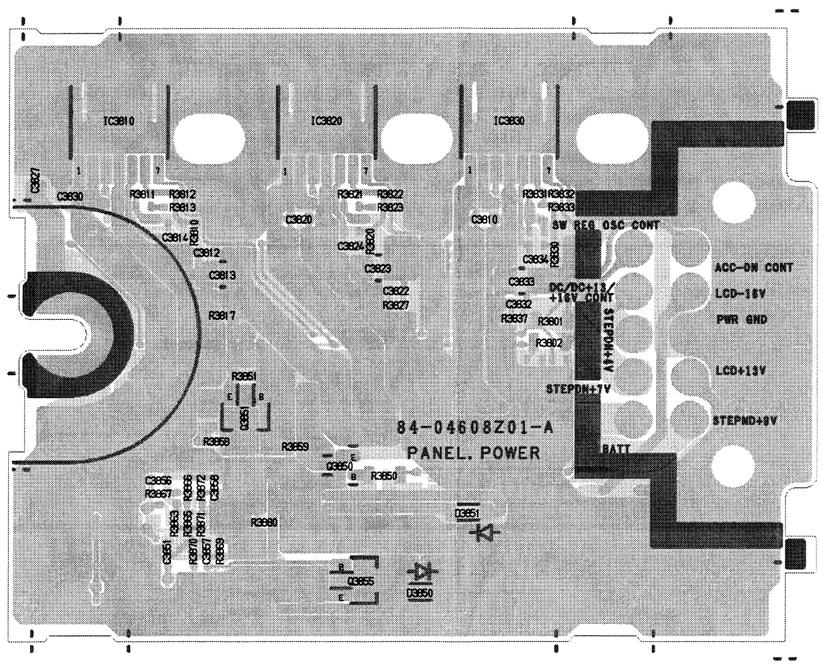
Parts Layout on P.W.Board

TO CONTENTS

POWER P.W.Board (Component Side View)



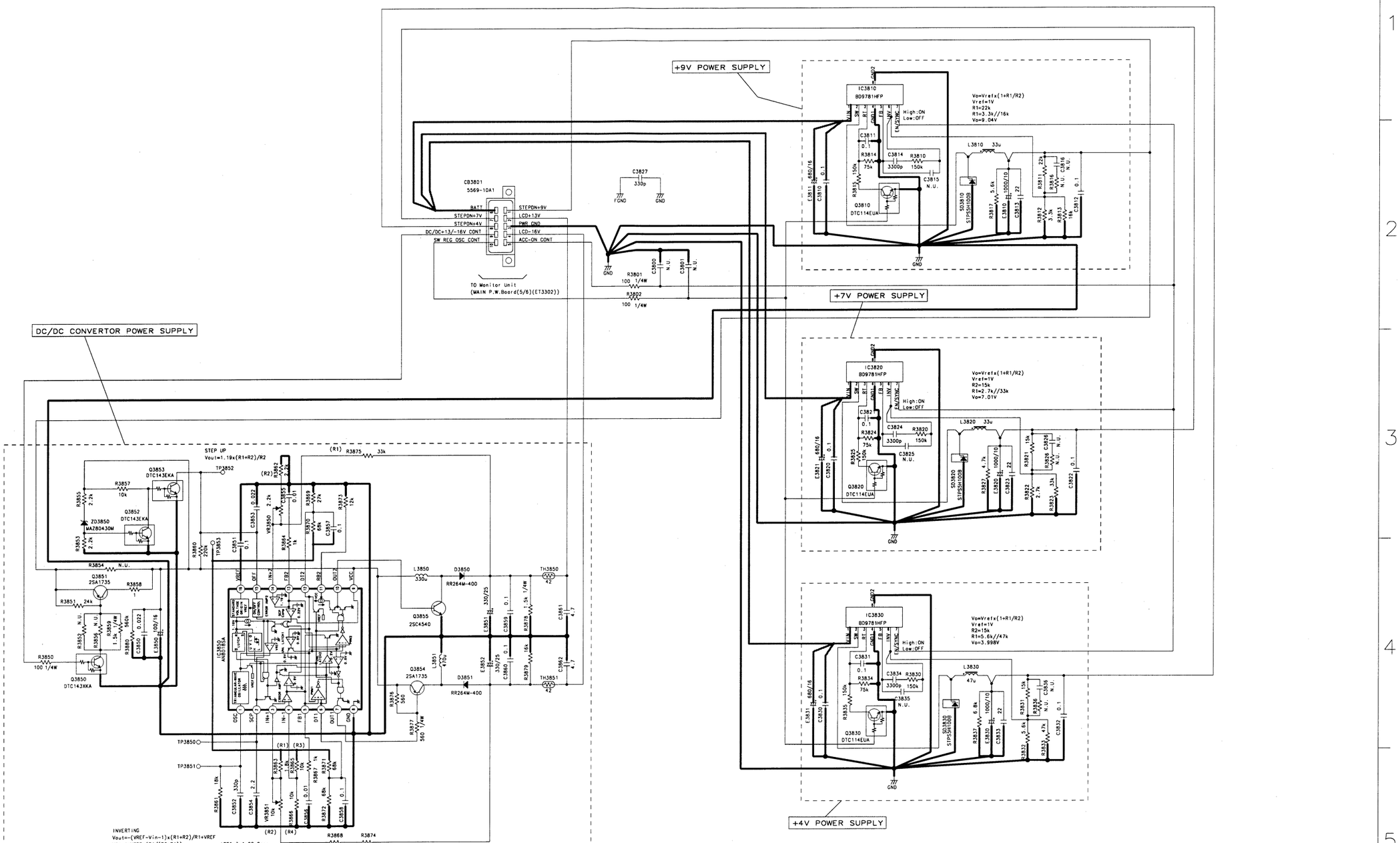
POWER P.W.Board (Foil Side View)



Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

Schematic Diagram



POWER P.W.Board
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Terminal Voltage of IC/TR

IC3810	
Pin No.	Voltage[V]
1	14.22
2	9.09
3	0.98
4	0
5	1.93
6	1.03
7	3.21
8	0

IC3820	
Pin No.	Voltage[V]
1	14.22
2	7.01
3	0.98
4	0
5	1.66
6	1.03
7	3.21
8	0

IC3830	
Pin No.	Voltage[V]
1	14.22
2	4.07
3	0.97
4	0
5	1.35
6	1.05
7	3.21
8	0

IC3850			
Pin No.	Voltage[V]	Pin No.	Voltage[V]
1	0.47	9	8.85
2	0.05	10	0.32
3	0.62	11	0.55
4	0.63	12	0.38
5	0.35	13	0.51
6	0.59	14	1.22
7	6.18	15	2.04
8	0	16	1.22

Q3810	
Pin No.	Voltage[V]
E	0
B	0
C	0.96

Q3820	
Pin No.	Voltage[V]
E	0
B	0
C	0.96

Q3830	
Pin No.	Voltage[V]
E	0
B	0
C	0.96

Q3850	
Pin No.	Voltage[V]
B	2.68
C	0.07
E	0

Q3851	
Pin No.	Voltage[V]
B	8.32
C	8.99
E	9.06

Q3852	
Pin No.	Voltage[V]
B	2.17
C	0
E	0

Q3853	
Pin No.	Voltage[V]
B	0.05
C	2.04
E	0

Q3854	
Pin No.	Voltage[V]
B	8.34
C	0.25
E	8.85

Q3855	
Pin No.	Voltage[V]
B	0.32
C	8.74
E	0

[Measuring Conditions]

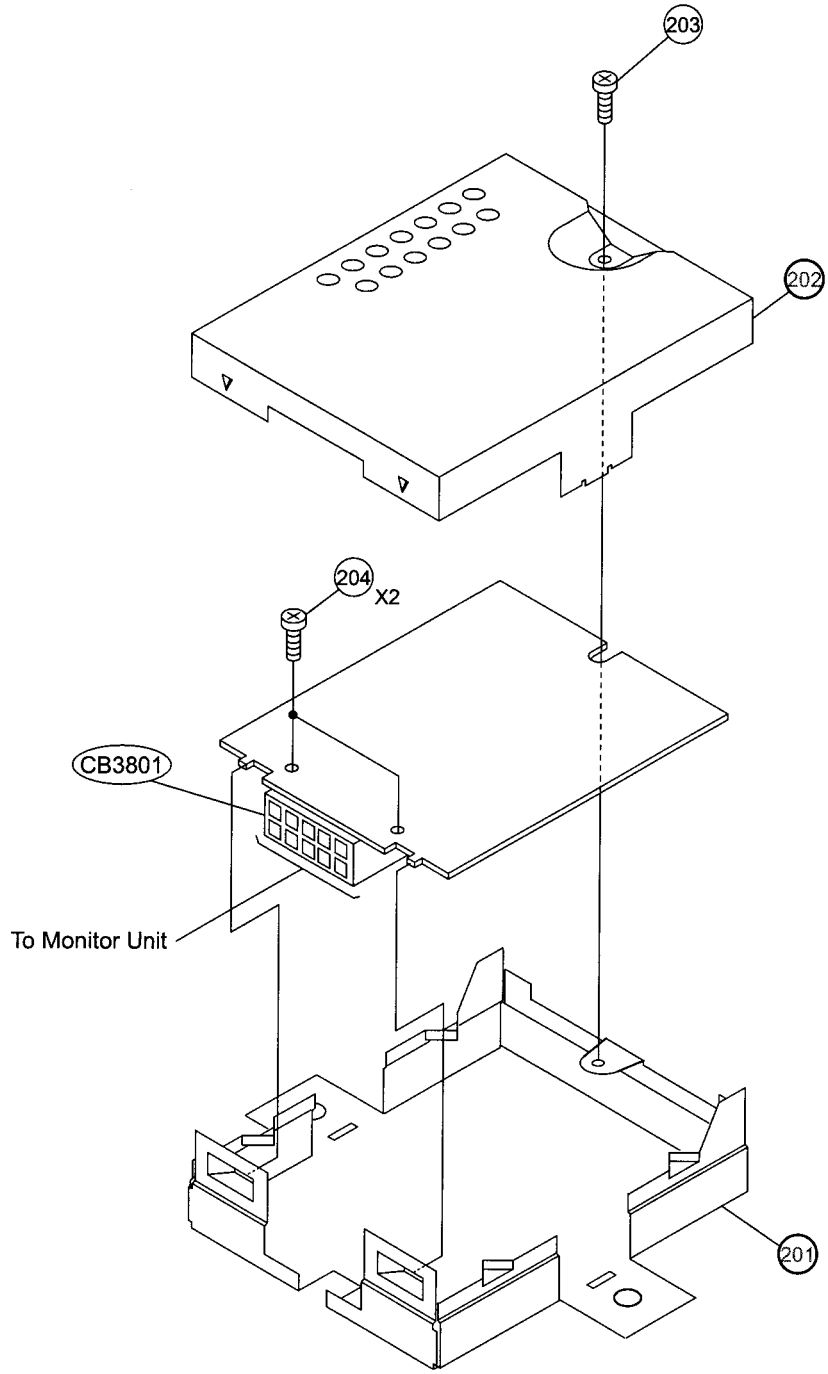
1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD play : TDV-540A (Title2, Chapter1, 75% SMPTE Color Bar)
   : Shuttle Open
   : 25°C
   : Screen display prohibition release

TO SCHEMATIC TO CONTENTS

Exploded View (Cabinet)

(DC/DC Converter Unit)

IVA-D100R/IVA-D100RB



TO PARTS LIST TO CONTENTS